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CYPRUS

AND

ASIATIC TURKEY

THE
TURKISH EMPIRE
BLACK SEA

CYPRUS AND ASIATIC TURKEY

A HANDY GENERAL DESCRIPTION

OF

OUR NEW EASTERN PROTECTORATE

FROM &4108.

The English Cyclopædia.

WITH A MAP.

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PREFACE.

THE Anglo-Turkish Convention has given a new and unexpected addition to the already extensive list of British territorial responsibilities. It is true that the "conditional" element which has tinged so much of our recent legislation enters into the connexion formed with the Turkish Government; and the claims to interpose between the Sultan and his subjects, as well as the circumstances which will render interference necessary, are not very clearly defined. But the British Government, not only by entering into the Convention, but by the prominence with which important events have invested that treaty, as also by their positive acquisition of the island of Cyprus, stand pledged before Europe

and the world to secure to the populations of Asiatic Turkey a deliverance from the oppressive and corrupt rule which has hitherto burdened them.

Whatever may have been the view of the framers of the Convention as to its scope and endurance, there can be no doubt that the people of this country—who resolved to abolish the iniquitous system of slavery without counting the cost—will take effective measures faithfully to discharge themselves of the responsibility undertaken in their name.

In the minds of all thoughtful men there is a strong belief that this country is the instrument by which freedom, peace, and true religion will be carried to the uttermost ends of the world. If that be so, there is assuredly no portion of the earth's surface which more needs the possession of these blessings, or from which can come in keener despair the cry, "Come over and help us." The countries of Asia still remaining in the demoralising hands of the effete and feeble Turk—feeble in all else but the greed of oppression—include those whereon the earliest pro-

genitors of the human race appeared, and those which are familiar to us in Biblical records, or interesting as the platform upon which mighty nations strove, and empires fell, in the strife which was raging then as now between the powers of Good and Evil.

In the belief that there is a prevailing desire to know as much as can be known of the situation, capacities, and condition of the lands which are now brought within the sphere of our immediate interests (material or sympathetic), the present compilation has been made from the pages of the ENGLISH CYCLOPÆDIA, and it may be accepted as supplying the best comprehensive description, with the most reliable information that is at present attainable.

Such enquirers as may desire to possess a more exhaustive description of the countries included within the limits of Asiatic Turkey and the regions immediately surrounding it, may be recommended to the ENGLISH CYCLOPÆDIA itself,—which is believed

to contain, in an easily accessible form, all that is at present authoritatively known respecting that little visited continent.

The Map which is prefixed to the present work will be found explanatory and helpful to the readers of its pages.

J. M.

LONDON, 1878.

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CYPRUS AND ASIATIC TURKEY.

HISTORICAL SKETCH OF ASIA MINOR.

THE history of Asia Minor forms an important chapter in the political and literary annals of the world. Here Persian, Greek, Roman, or Turk has successively held the mastery; here the prince of poets sang, and the father of history wrote, when all but a small angle of Europe was sunk in barbarism. In this sketch it would be out of place to do more than enumerate the more important events in the history of the country.

The Lydians led from the east by Lydus (Lud?), or descended from him, are said to have been the earliest settlers in the country, although the Phrygians claimed a higher antiquity. The Lydian capital was Sardis, situated at the confluence of the Pactolus with the Hermus. Here Crœsus, celebrated for his wealth, and the last of a long line of kings, reigned over a territory which extended eastward to the Halys. His wealth probably brought against him the arms of the Persians, led on by the great Cyrus, who defeated and dethroned him in B.C. 548. From this date for above 200 years Sardis was the seat of the Persian governors of Asia Minor. Yet the Persians

never could entirely subjugate the country; the mountain-tribes of the Taurus, and especially the Pisidians, still maintained their liberty, and the numerous Greek cities which were founded along the western and northern coasts before the downfall of the Lydian dynasty, were ever on the watch for an opportunity to recover their freedom. In 401 B.C., the younger Cyrus advanced from Sardis against his brother Artaxerxes, attended by a force of Greek mercenaries, who thus learnt the way into the heart of the Persian empire. After the unsuccessful termination of the expedition, the 10,000 surviving Greeks, under the conduct of Xenophon, crossed the northern part of Asia Minor on their return home. The victory of Alexander at the Granicus, in B.C. 334, and that of Issus in the following year, decided the fate of the Persian empire, and wrested Asia Minor from the Persian yoke.

The long series of wars that followed the death of Alexander resulted in the formation of several small kingdoms in Asia Minor, the most important of which were those of Pergamus and Pontus; the former ruled by monarchs of Greek descent, the latter by princes of Persian origin. Attalus Philometor, the last king of Pergamus, died B.C. 133, bequeathing his kingdom to the Romans, who thus obtained a footing in Asia Minor; but owing to the extraordinary courage and persistent opposition of Mithridates king of Pontus, they did not succeed in reducing the peninsula to the form of a province till the time of Pompeius and Julius Cæsar. Under the government of Rome, Asia Minor reached its highest prosperity. Peace being secure, agriculture and trade flourished; excellent roads were formed, new cities erected, and old towns rebuilt or embellished. The numerous and extensive ruins discovered by modern travellers in Asia Minor, attest a high degree of civilization and splendour. The early history of the Church is intimately connected with that of Asia

Minor; in the clash between Christianity and Paganism much bitterness was engendered, and many strifes ensued; the Pagan was cruel and a persecutor, and the Christian, in his misdirected zeal, demolished the finest temples, regardless of the beauty of the work or the skill of the architect. Two œcumenic councils sat in the city of Nicæa, A.D. 325 and 787 respectively; the former condemned the Arian heresy, and framed the Nicæan Creed, the latter condemned the Iconoclasts. The dissensions between religious sects during the 5th century led to great cruelties, and the city of Ephesus witnessed many disgraceful quarrels amongst the followers of the religion of peace. Under the Sassanide dynasty the Persians again turned a longing eye towards the west, and the Byzantine emperors had to struggle hard for the defence of Asia Minor.

To strengthen himself against the Persians, Justinian formed an alliance with the Turks, who then appear for the first time on the field of history, looking down from the heights of the Caucasus. In 611 Chosroes II., king of Persia, overran Asia Minor from the Euphrates to the Bosphorus, sacking Ancyra, and taking Chalcedon by storm. Heraclius however conveyed his army by sea to the gulf of Issus, defeated the Persians with great loss in a battle fought on the Sarus, and by the victory of Nineveh, which he won in 627, for ever humbled the hereditary enemy of the Roman empire. Soon after this the Koran was written, and raised a new power in the world; the Asiatic provinces of the empire were seized one after another by hordes of Saracens, Arabs, and Moors. Haroun-al-Rashid twice overran Asia Minor, and compelled Nicephorus I. to pay tribute. Theophilus II. (820—840) was constantly engaged in warfare with these invaders, and at the end of his fifth campaign had the mortification of seeing Armonium, the birthplace of his father, levelled to the ground by the Caliph Motassem. The Seljukian Turks next come upon the scene, taking Iconium in 1069,

making the emperor Romanus Diogenes prisoner at the battle of Manzicert, August 26, 1071. Cutulmish, one of their princes, soon after established his camp at Kutahiyeh. In 1074 Soliman I., son of Cutulmish, pushed his conquests in Asia Minor to Nicæa, the capital of Bithynia, which he made the seat of his government; and now commenced in earnest that long struggle between the Greeks and Turks which did not terminate till the capture of Constantinople by the latter in 1453. In this interval however the soil of Asia Minor echoed to the tread of the mailed warriors of the Crusades, first in 1098, when under Godefroy de Bouillon the chivalry of Europe, after the capture of Nicæa, swept across the peninsula, to establish the kingdom of Jerusalem; again, in 1148, during the disastrous advance of Conrad III. and Louis VII.; once more in 1190, when a bath in the Cydnus proved fatal to Frederick I. as it had nearly done to Alexander the Great long before. In the fourth crusade arose the new Greek principalities of Nicæa and Trebizond. During the following half-century the Seljukian Turks again invaded Asia Minor, and re-established the kingdom of Iconium, which was finally extinguished by the Mogul invasion under the descendants of Gengis Khan in the 13th century. Orthogrul, one of the adherents of the late dynasty, retired to Surghut on the Sakariyeh, whence Othman, his son, issuing in 1299, in a few years conquered Bithynia and the neighbouring provinces, receiving just before his death in 1326 news of the capture of Brusa, which then became the capital of the Ottoman empire. The remaining provinces, with the seven churches, were soon after finally lost by the Christian emperor. Bajazet I. was master of all the territories of the empire, with the exception of the kingdom of Trebizond and a small strip of ground round Constantinople, and these, with the city of Constantine itself, he was preparing to seize, when a new Mongol invasion, under the famous Tamerlane, brought on the battle of Angora (July 20, 1402), in

which Bajazet lost at once his liberty and his kingdom; and the conqueror, after taking Ephesus and Smyrna, established himself for a time at Kutahiyeh, whilst his sons wasted and plundered the whole country. The Mongol tide soon ebbed, however, and in 1403 Brusa again shared with Adrianople the honours of the sultan's residence. Mahomet II. came to the throne in 1451; Constantinople fell in 1453; Trebizond in 1461; and since that time the provinces of Asia Minor have been until within a few years ruled by grasping Turkish governors, constantly at feud with one another. Such of the towns as survived the ravages of time and war lost their trade and commerce, the fairest and richest plains have been left without culture, and hordes of nomadic Turkomans and Kurds roam unchecked through the central table-lands.

These regions, which in earlier ages were studded with prosperous cities inhabited by teeming populations blessed with material civilisation and governed in some measure by principles of law and justice, are now and have been for centuries the prey of the spoiler. A cruel oppression has turned into a desert lands which once had been exuberant in their fertility. It may be that under the benignant influence of British administration, applied either directly or through the medium of a renovated Turkish Government, they will again experience the blessings of order, security, and peace.

CYPRUS.

CYPRUS, or as it is called by the Turks, Kibris, is one of the largest islands in the Mediterranean, and lies near the coasts of Syria and Asia Minor. Its principal part, in shape an irregular parallelogram, is about 110 miles long from east to west, between Cape della Grega (the ancient Pedalium) at St. Pifano, and Hagios Epiphanios (the ancient Cape Akamas). The breadth of this part of the island varies from 30 to 50 miles, its most southern point being Cape delle Gatte (the ancient Curias), and its most northern point Cape Kormachiti (the ancient Crommyon), which is 45 miles distant from Cape Anemur in Cilicia. The rest of the island forms a horn-like projection, about 20 miles in length with a breadth of from 2 to 5 miles, terminating in Cape Andrea (the ancient Dinaretum), off which lie two small islets called Kleides, or "the keys of Cyprus." This part, which is rugged, mountainous, and rocky, takes a north-eastern direction, pointing into the Gulf of Scanderoon, and lies nearly in a line with Cape Khanzir, the most southern point of the Amanus Mountains on the coast of Syria. The distance from Cape Andrea to Cape Khanzir is about 75 miles; but the nearest part of the Syrian coast, in the neighbourhood of Latakieh, is only about 60 miles distant from Cape Andrea. The island is about 230 miles north from the Damietta mouth of the Nile. A range of mountains runs through the island in the direction of its length, keeping closer to the north than to the south coast. These mountains, called Olympus by the ancients, now Stavro-Vuno and Santa-Croce, are according to some more than

7000 feet, to others more than 10,000 feet above the sea. On Mount Santa-Croce, 18 miles north of Larnaka, is a church said to have been founded by Helena, the mother of Constantine : another summit, 5 miles from Zerini, or Ghirneh, near the north coast, has a monastery and an old castle upon it, from which there is a splendid view. The northern slope of these mountains is bold and rugged : the southern side is still more so, presenting a deeply-serrated outline with thickly-wooded steeps, diversified by precipitous masses of limestone and deep picturesque valleys, in which grow the narcissus, the anemone, and the ranunculus. The most extensive plain, called Messarea, is in the south-east part of the island, and is watered by the river Pediæus, which is however nearly dry in summer, like all the other rivers of the island. Another level tract, watered by the Tretus, lies to the south of the former, near the ancient city of Citium.

Strabo (Casaub., 682, &c.) gives the following enumeration of the towns of Cyprus in his time. On the north coast, east of Cape Acamas, were Arsinoë, Soli, with a harbour founded by Phalerus and Acamas of Athens ; Limenia, inland ; then east of Cape Crommyon, Lapathus, built by the Lacedemonians ; next Agidus, Aphrodisium, and Carpasia ; east of the latter was a mountain and cape called Olympus, with a temple of Venus upon it, which women were forbidden to enter. Turning thence towards the south was Salamis, at the mouth of the Pediæus, one of the principal cities of the island, said to have been built by Teucer, an emigrant from the island of Salamis. Near the mouth of the Pediæus was Ammochostos, the name of which remains in the corrupt form of Famagosta. Proceeding southward was another Arsinoë, with a port ; next came Leucolla, near Cape Pedalium, a lofty table-land, called the "Table of Venus." West of Pedalium was Citium, with a harbour that could be closed. Citium was a large town, and the birthplace of Zeno the Stoic. West of Citium was Amathus. Inland was Palæa, and

another mountain called Olympus. Sailing round Cape Curias to the west was the town of Curium, with a port, built by the Argivi. Here the coast turns to the north-west, looking towards Rhodes, and had the towns of Treta, Boosoura, and Old Paphos (Palæpaphos); then Cape Zephyrium; and next to it another Arsinoë, with a port, temple, and sacred grove; and New Paphos, built by Agapenor, 60 stadia by land from Old Paphos. The north-eastern part of the island was called the Akte of the Greeks, from the tradition that Teucer landed upon it with his colonists.

Most of the above towns, and others which Strabo has left out, have long since disappeared. The present towns of Cyprus are the following:—*Lefkosia*, vulgarly called *Nikosia*, the capital of the island, and the residence of the Turkish governor, which is near the site of the ancient Letra, or Leucotra. Its population is not more than 16,000. The town stands in the centre of the island, in a plain surrounded by mountains. Lefkosia was the residence of the kings of Cyprus of the Lusignan dynasty, and was then much larger than at present: the Venetians destroyed part of it in order to strengthen the remainder. It is now three miles in circumference. The church of St. Sophia, a fine gothic building, is converted into a mosque: the monuments of the Lusignans in it being sadly mutilated. There are also a fine bazaar, a khan for travellers, several Greek churches and convents, a Roman Catholic church, and the palace of the governor, on the portal of which is still seen the Venetian lion in stone. The bastioned walls erected by the Venetians still stand. The streets are narrow and dirty, and many of the fine old mansions are crumbling to decay. Carpets, cotton prints, and morocco leather are the chief industrial products; there is some trade in raw cotton and wine. The Greek archbishop of Lefkosia is metropolitan of the whole island. *Famagosta*, on the east coast, a few miles south of old Salamis, and not far from the site of the

ancient Tamassus, once famous for its copper mines, is a town once strongly fortified by the Venetians, but now much depopulated and decayed. The Venetian palace and most of the churches are in ruins, and the fortifications are insignificant. *Larnaka*, or *Larfika*, adjoining the site of old Citium, near the south coast, and 24 miles southwards from Lefkosia, is a thriving place, being the residence of the European consuls and factors, and the chief seat of trade. The port of Larnaka is at Salines, about a mile and a half distant. A Greek bishop resides at Larnaka, and there are also some Catholic churches in the town. The houses are built chiefly of clay, and only one story high above the ground-floor, on account of the earthquakes to which the island is subject. The interior of the houses however is comfortable, the apartments are paved with white marble, and almost every house has a garden, of which the Cypriotes are very fond. The principal exports consist of cotton, wine, the best of which is produced near Limasol, salt, corn, opium, turpentine, silk, and fruit: population about 3000. *Limisso*, or *Limasol*, near the ancient Amathus, 42 miles S.W. from Larnaka, has a good harbour, but the town is a heap of ruins: in the surrounding country the vine and other fruit-trees flourish; carob-trees being especially abundant. *Baffo*, or *New Paphos*, has been already noticed. On the north coast is *Zerini*, or *Ghirneh*, the ancient Cerinia, with a fort and a small harbour, from which there is some traffic with the opposite coast of Caramania. Besides these, there are a few Greek villages and several monasteries scattered about the island.

The soil of Cyprus is naturally fertile; formerly under the Venetians it maintained a population of nearly 1,000,000; but the number of inhabitants in 1850 was only 140,000, of whom about 100,000 were Greeks, and 30,000 Turks, the remainder being Catholics and Maronites. From neglect and oppression, the inhabitants are in a state of the greatest misery. Many districts of the island

are uninhabited, being either uncultivated wastes or clothed with heath, thyme, and other aromatic plants. Cotton of the finest quality, excellent wine, and all kinds of fruit are produced; but agriculture is in a most backward state. The average annual yield of corn is about 112,000 quarters. Besides the productions just named, madder, opium, colocynth, oranges, lemons, pomegranates, hemp, tobacco, &c., are grown. The carob-tree (*Ceratonia Siliqua*) abounds in some districts; its succulent pods are exported to Egypt and Syria, while the pulp, which is called St. John's Bread, and resembles manna, is used as an article of food. Other products are olive-oil, pitch, wool, cheese, raisins, and silk. On the mountains are forests of fine timber. One of the most important plants of the island in respect to its economical uses is the *Ferula Græca* (the ancient νάρθηξ, and still called Narthēka): of the stalks the Cypriot forms a great part of his household furniture; and the pith is used instead of tinder for conveying fire from one place to another, as taught by Prometheus of old. (Æschylus, "Prom.," 109-111.) Sheep and cattle thrive. In ancient times Cyprus was famous for its valuable copper mines, as well as for gold, silver, and precious stones, including the diamond, emerald, jasper, opal, and agate. Copper, asbestos, talc, rock-crystal, and various other minerals are now known to exist, but no mines are allowed to be worked. Salt is made on the sea-shore to the amount of about 10,000 tons annually. Game and fish are plentiful. The island is infested with snakes, tarantulas, and venomous spiders; and sometimes almost every green herb and leaf is devoured by clouds of locusts from the neighbouring continent. The climate is cold in winter, owing to the winds that blow from the mountains of Asia Minor and Syria. In the plains the heat of summer is excessive, but it is moderated by the sea breezes; rain is very rare in summer, and as irrigation is neglected of course there is then very little verdure. Some districts are

unhealthy, from want of drainage, and the consequent malaria.

Cyprus in its greatest length is 121 miles, its circumference about 250 miles, and its area 2768 square miles. The hills are grouped in two chains, one on the south, the other on the north side; the latter chain is the least elevated, few of its highest points reaching above 3000 feet, while four hills in the south chain rise to a height of 5000 feet or more; one of these mountains, Troodos, is more than 6000 feet high. Between the chains is a plain, through which the two principal rivers flow. Both rise from the flanks of the mountains near the centre of the island; but one flows towards the west, and the other and larger towards the east. The springs in the northern chain are more abundant and copious than those in the south, and occur at an elevation of about 700 feet, at the junction of the limestone and marl. As the climate is dry in the earlier part of the year and the springs are permanent, it is believed that their real source is not in the south chain of the island, but in the Caramanian mountains, on the opposite coast. The geology has not been worked out. The axes of the mountain chains are believed to be plutonic; but sedimentary rocks, consisting of limestones, sandstones, and slates, rest on their flanks, which are referred to the Jurassic formation by Prof. Reuss. On the lower slopes of the hills marls have been found which appear to be tertiary; the marl bed near Larnaka contains foraminifera, mostly belonging to the *miliolidæ*, and nearly all recent.

When the Phœnicians first colonised Cyprus it was well wooded; since then the forests have been destroyed, and vast tracks of woodland have been converted into dry, arid deserts. There are still some small woods on the tops of the hills.

The natural sterility of the country has not been remedied by much agricultural effort of the Cypriots.

They cultivate wheat and barley, but the latter in preference, as the more likely to escape the ravages of the locust. Vetches, lentils, beans, cotton, madder, and *colocasia antiquorum*, are also cultivated. The natural history of the island has been frequently investigated. Labillardière, Sibthorp, Hawkins, and Bauer, visited it in 1787. As many as 374 Cyprian plants are figured by Bauer in Sibthorp's "Flora Græca." The island was explored botanically by Clarke in 1801, Aucher Eloy in 1831, and Kotschy in 1840; Gaudry explored it in 1853, chiefly for geological purposes. In 1862 Drs. Unger and Kotschy spent several months in investigating the physico-geographical features. Their chief attention was given to botany and to the coleoptera, of which 1384 species were obtained.

Whilst Cyprus was under Turkish administration the island had a population of about 200,000, two-thirds of whom belong to the Greek Church, the remainder are Mohammedans. The roads in the interior are very bad; wheel-carriages are seldom available, and the communication is carried on by means of the camel, horse, ox, and ass, as beasts of burden. The agriculture is limited; not above an eighth of the island is under cultivation, although the cereals grow well, and some wheat and barley are exported. The vine and the olive flourish, the first producing the chief article of export in the shape of a dark-coloured sweet wine. Cotton, madder, and tobacco are grown, and some silk is produced. Salt is obtained from the lagunes near Larnaka and Limasol. The exports range from 150,000*l.* to 200,000*l.*; the imports seldom amount to more than two-thirds of the exports. The manufactures are very inconsiderable; besides the wine, they are chiefly a few silk stuffs and some leather. The salt lagunes in the neighbourhood of the towns of Famagosta, Limasol, and Larnaka, are said to produce intermittent fevers of a dangerous character among the inhabitants.

Cyprus appears to have been colonised by the Phœnicians at an early period, and the island, or a portion of it, seems to have been subject to them even down to the time of Solomon. Their chief town, *Citium*, is supposed to have been the most ancient city in Cyprus, and to be the *Chittim* mentioned in the Old Testament. Its ruins are seen between Larnaka and its port Salines. Phœnician inscriptions have been found in the foundations of a fort, which defended a large basin or harbour now nearly filled up. Ethiopians are also mentioned as forming part of the population, but it is difficult to say exactly who are designated under this name. Greek colonies afterwards settled on the coast. According to Strabo it was divided among several petty tyrants, who were at times at war with and sometimes allied to the neighbouring powers of Asia Minor and Greece. Amasis, king of Egypt, invaded Cyprus and took Citium (Herod. ii. 162), and it was probably he who introduced the Ethiopian or African settlers. The island became subject to the Persians (Herod. v. 108), and afterwards submitted to Alexander the Great, upon whose death it fell with Egypt to the share of Ptolemy, the son of Lagus. It continued under the Ptolemies, sometimes united with Egypt, and sometimes under a separate prince of the same dynasty. The last of these princes, brother to Ptolemy Auletes, king of Egypt, incurred the enmity of P. Clodius Pulcher, who being taken prisoner by the Cilician pirates, sent to the king of Cyprus for money to pay his ransom. The king sent a sum which was too little. Clodius having recovered his liberty by other means, when he became tribune of the people obtained a decree to be passed for reducing Cyprus to a Roman province. (Strabo, 684; and Dion., xxxviii. 30.) M. Cato was sent to take possession of it. The king on hearing of this design put himself to death before Cato's arrival. Cato seized upon the treasury, which was well filled, and sent a large booty to Rome. Cyprus thus

became a Roman province. On the division of the empire it fell to the lot of the Byzantine emperors, and after several vicissitudes became a separate principality under a branch of the Comneni. Richard of England took it in 1191, and sold it to the Templars, whose oppression drove the people to revolt. Richard resumed the sovereignty, and gave it to Guy of Lusignan, the expelled king of Jerusalem, in 1192. The Lusignans retained it for nearly three centuries, during which period Cyprus flourished. John III. of Lusignan died in 1458, leaving the kingdom to Charlotte, his only legitimate child, who married her cousin Louis, count of Geneva, second son of the Duke of Savoy and of Anna of Cyprus. She was solemnly crowned at Lefkosia in 1460, but was soon after expelled by her natural brother James, assisted by the Mamelukes of Egypt. James married Catherine Cornaro, the daughter of a Venetian merchant, who brought him a dowry of 100,000 gold ducats. On this occasion the Venetian senate adopted Catharine Cornaro as daughter of St. Mark, and the marriage was celebrated in 1471. In 1473 James died, and his wife soon after was delivered of a son, of whom the republic of Venice assumed the guardianship, and Venetian troops were sent to garrison the towns of the island. The child dying whilst an infant, the senate persuaded Catharine, in 1489, to abdicate the sovereignty in favour of the republic, and to retire to Asolo near Treviso, where she spent the remainder of her days in a princely style on a liberal pension. Meantime Charlotte Lusignan had retired to Rome, where she died in 1487, bequeathing her claims to Charles, duke of Savoy, in consequence of which the sovereigns of that dynasty (now kings of Italy) assume to this day the title of kings of Cyprus and Jerusalem. The Venetians kept possession of Cyprus till 1570, when Selim II. sent a powerful force to invade the island. The Turks took Lefkosia by storm, and massacred about 20,000 people. They then laid siege to Famagosta, which was long and gal-

lantly defended by the proveditor-general, Marcantonio Bragadino. At length, in August, 1571, the Venetians were obliged to capitulate, on condition of being sent safely home. The pasha Mustapha signed the capitulation, but when Bragadino with the other Venetian officers repaired to his tent to deliver up the keys, they were treacherously seized and put to death, excepting Bragadino, who, after some days, was led naked to the square of Famagosta, where in the pasha's presence the executioner began to flay him alive. Bragadino expired in the midst of the torments, which he endured to the last with the greatest constancy. His skin was filled with straw and hung up to the yard-arm of the admiral's vessel, in which Mustapha returned to Constantinople. Venice raised a monument to the memory of Bragadino in the church of San Giovanni e Paolo, and his relatives after a time ransomed his skin, which was placed in the monument. From that time the island remained in possession of the Turks, and formed a pashalic in the Eyalet of the Djizairs, or islands which are governed by the Capitan Pasha.

In July, 1878, Cyprus was conditionally ceded to Great Britain, and is now administered as one of the possessions of the Crown.

ANATOLIA.

ANATOLIA, from *ἀνατολή*, "east," is a geographical term which originated under the Byzantine empire, and was used to designate the country that lay east of Constantinople. The term is frequently employed as the modern synonym of the peninsula of Asia Minor. In the divisions of the country as they are recognised by some writers, however, the term Anatolia (written also Natolia and Anadoli) has a more restricted sense, and is applied to the west and north-west of Asia-Minor, including the whole territory west of the Halys, the Karajah-Dagh, and the continuing range as far as Lake Iber, where the boundary runs south-west to the neighbourhood of Lake Chardak, and thence nearly southward, terminating near the midpoint of the Lycian coast, opposite the isle of Kastelorizo. The north-east of the peninsula is on maps called Roum, and the south-east Karamania. In the east, Rum (pronounced Room) is the common name of Asia Minor.

BOUNDARIES AND MODERN DIVISIONS.

Anatolia is here considered as representing the whole of the peninsula in western Asia, lying between 36° and 42° N. lat., 26° and 40° E. long.; and bounded N. by the Euxine or Black Sea, W. by the Ægean or Archipelago, the Dardanelles, the Sea of Marmara, and the Bosphorus; and S. by the Mediterranean and Syria, from which last it is separated by the Amanus Mountains and for a short distance by the Euphrates. The eastern boundary is not a natural one, and it is very complicated. Leaving the Euphrates at a short distance above the town

of Someisat, the ancient Samosata, it runs for some way eastward from that river, and then sweeps round to the north-north-west till it meets the Murad, down which it runs to the junction of the Kara-Su; from this point it takes a north-east direction for a few miles, along the Munsur-Dagh (9000 feet high), which lies near the left bank of the Kara-Su; then turning north-north-west it crosses this river and strikes the watershed between the Euphrates and the Yeshil-Irmak, near 39° 45′ N. lat., 39° E. long.; whence after several bends to the north-east and east the boundary reaches the Almali-Dagh and the high-lands connected with them, and running north-eastward reaches the Black Sea a little east of Trebizond.

The length of the peninsula from the junction of the Murad and Kara-Su, nearly on the parallel of 39° N. lat., to the coast opposite the island of Mitylene, is 670 miles; this may be taken as the average length from east to west. The breadth from the head of the Gulf of Iskenderun to the port of Samsun, the ancient Amisus, is 300 miles; the distance between the head of the Gulf of Adalia and the mouth of the Sakariyeh, the ancient Sangarius, is also 300 miles. Between the two lines thus indicated the breadth increases to 420 miles; but the average may be taken at 320 miles. The area, not including the islands round the coast, exceeds 200,000 square miles; and the population is supposed to be about 5,000,000.

The name Asia Minor (Ἀσία ἡ Μικρά) came into use in the 4th century, to distinguish the peninsula from the Greater Asia (Ἀσία ἡ Μεγάλη), which comprised the countries that lie east of a line drawn from the head of the Gulf of Issus to the Euxine, near Trebizond. The early Greek colonists who settled on the coast of the peninsula, spoke of a Lower Asia, which comprised that part of Asia Minor west of the Halys, and was nearly co-incident with the division of Anadoli, mentioned above; and of an Upper Asia, which included the rest of the peninsula and all Asiatic countries east of the Halys.

Asia Minor was known to the later Greeks under the names of its divisions—Mysia, Lydia, and Caria, on the west; Lycia, Pamphylia with Pisidia, and Cilicia, on the south; Bithynia, Paphlagonia, and Pontis, on the north; and Phrygia, Galatia, and Cappadocia, in the centre. The Greeks established colonies and built towns on all the three coasts of the peninsula, but their occupation was most complete and continuous on the west side. Here were the districts of Æolis, Ionia, and the little Dorian confederation of Caria. The Romans, under the designation of Asia intra Taurum, or Asia within the Taurus Mountains, included all that part of the peninsula to the north and the north-west of this mountain-range, whilst the remainder of the country, and all the rest of Asia, was comprehended under the name of Asia extra Taurum, or Asia beyond the Taurus. The islands belonging to Asia Minor were formed into a province (Provincia Insularum) by Vespasian: in the time of Constantine the province comprised 53 islands, with Rhodes for metropolis. In the administrative divisions of the Turks the islands have always formed a separate government called Djizair (that is, "islands"), of which Rhodes is the capital.

The Turks, who are very inconstant in their geographical arrangements, and confound all ancient distinctions, divide Asia Minor at the present time into eight Eyalets, or general governments:—1. Kastamuni, which includes Paphlagonia; chief town, Kastamuni: 2. Khouadavendiguiar, comprising Bithynia; chief town, Brusa: 3. Aydin, which embraces Lydia and the other states on the western coast; chief town, Smyrna: 4. Karaman, which includes the ancient Phrygia and Pamphylia; chief town, Koniyeh: 5. Adana, containing the ancient Cilicia; chief town, Adana: 6. Bozoq, which comprises the ancient Galatia; chief town, Angora: 7. Siwas, comprising Cappadocia; chief town, Siwas: 8. Tharabezoun, which contains Pontus and a part of Armenia; capital, Trapezun or Trebizond.

The Eyalets are governed either by a vali (viceroy) or mutesherif (governor-general); each eyalet is subdivided into *livas*, or provinces, administered either by kaimakans (lieutenant-governors) or mohassils (prefects). The livas are further divided into cazas, or districts, and these into nahiyes, that is, villages or communes.

COAST-LINE, ISLANDS, ETC.

The southern coast presents an irregular outline, formed by two huge semicircular projections of the coast between and on the flanks of which the sea runs with bold sweeps into the land. There is, however, no deep gulf or bay with the exception of that of Issus or Iskenderun, which runs up between Asia Minor and Syria. Few coasts present so bold a front to the sea. From the Gulf of Glaucus, now Makri, to the extensive plain which opens behind Adalia, an almost uninterrupted mass of lofty mountains presses near the shore, and sometimes forms the immediate boundary of the waves. From the mouth of the Eurymedon (Kopri Su), to the peninsula of Cape Cavaliere, there is a series of bold promontories; and in some parts, as between Selinty and Anamur, bare rocky hills, backed by lofty mountains, form the coast. Near the eastern extremity of this coast, the wide plains of the level Cilicia open on the sea, and extend some distance along the west coast of the Gulf of Issus. About 45 miles south from Cape Anamur lies Cyprus, and about 10 miles from Cape Aloupo, the ancient Kunosema, and the most south-western point of the peninsula, is Rhodes. The other islands on this and on the northern coast are very small, both in number and size.

The western coast of the peninsula presents as jagged and irregular an outline as almost any coast in the world, and in many respects very much resembles the opposite shore of Greece. Deep bays with bold projecting peninsulas and islands, which are continuations of the adjacent promontories of the mainland, characterise this coast.

The principal of the islands on the west coast are Cos, Samos, Chios, and Metelin or Mytilene, the ancient Lesbos. The channel of the Dardanelles, the ancient Hellespontus, separates Europe from Asia by a strait about 40 miles long, and at its narrowest part not more than one mile broad. The wider opening of the Propontis, or Sea of Marmora (about 140 miles long, and 45 miles broad in the widest part) is succeeded by the Bosphorus (14 miles long, and from half a mile to 2 miles broad), which unites the Sea of Marmora and the Black Sea. The coast of the Black Sea presents no deep indentations or bays; the mountains are never very far removed from the shore, and the coast is described as strikingly bold in its outline; lofty hills, covered with extensive forests, stretching down to the water's edge, while occasionally broad valleys, with steep cliffs on either side, run far up into the country. For some distance about Cape Lepte, now Indje, the coast is low and black. At the mouths of the Halys and the Iris there are low tracts of alluvial formation, thickly wooded, and in some parts marshy. Steep hills, rising directly from the sea, and broken by many deep ravines, characterise the coast near Trebizond, which town stands at the foot of a high range of undulating hills sloping down to the beach and everywhere well wooded.

THE MOUNTAIN RANGES OF ANATOLIA.

The general characteristics of the surface of the interior of Asia Minor are its vast parallel mountain ranges, which run nearly east and west, and support between them high table-lands of great extent. The table-lands contain numerous salt and fresh-water lakes, and are drained by numerous rivers, the largest of which flow into the Euxine and Archipelago. The southern table-land is remarkable for its many traces of volcanic action, and for its series of salt-lakes, many of which have no

visible or known communication with the sea, the rivers that originate in them plunging into the earth at the northern base of the Taurus Mountains. The three principal mountain ranges are—the Taurus, which is the most southern; the Antitaurus, central and east; and the mountains that run nearly parallel to the coast of the Euxine. These mountains, and the table-lands connected with them, will be here described in the order just laid down.

1. *Mount Taurus.*—The Euphrates, from the junction of the Kara-Su with the Murad, near Kapan-Maden, runs in a south-western direction, till, in 38° 36′ N. lat., 38° 30′ E. long., it enters the alpine country through the narrow pass of Ilijah. Stopped by a range of lofty mountains, the river turns east, south-east, south, and south-west, and after having made a curve, the diameter of which from north to south is above 70 miles, resumes its southern course in the environs of the village of Buser. The tract encompassed by this curve of the Euphrates is a mountain-knot, which may be considered as the eastern extremity of Mount Taurus proper; its northern limit is formed by the river Tokhmah, the Melas of the ancients, which joins the Euphrates on the west a little below the pass of Ilijah. This knot, of which the Akjah-Dagh is the highest point, stretches west as far as the town of Marash, whence it continues in several ranges; and for the sake of convenience we shall call the whole the Akjah Mountains, though it would be perhaps as well to call it the Commagenian Mountains, since the country thus encompassed by the Euphrates was the principal part of the ancient province of Commagene. Well-wooded and fertile valleys lead from the Tokhmah up to the mountains. They wind at first through limestone hills abounding with fossil shells. Where the hills end, long ridges of black volcanic rocks begin; these are succeeded by platforms and table-lands, upon which the rock-terraces rise one above another, terminated at the crest in conical

summits. On the Belli-Gedik hills the altitude ascertained by the barometer is about 5625 feet, but the Akjah-Dagh is probably twice that height, it having been seen covered with snow in the latter part of May. The Gok, a small river which joins the Euphrates after a southern course, winds through colossal cliffs of limestone, and forms the celebrated pass of Erkenek, the most difficult part of which lies in the valley of the rivulet Erkenek, a feeder of the Gok. The ancient town of Perre, now probably Pelvereh, was situated in the pass, the only one through which armies coming from the interior of Asia Minor can descend into the valley of the Euphrates, and thence into Mesopotamia or Syria. In this part of the Akjah mountains the rocks consist chiefly of shaly schists, which constitute the axis of the whole of Taurus. The valleys are well cultivated, and inhabited by Kurds. Near Marash a chain separates from the principal knot, forks into two branches, and encompasses the Gulf of Iskenderun.

The principal chain of the Taurus stretches from the environs of Marash in a western direction across the whole length of the peninsula, and is generally, but not always, parallel with the coast: its steep side faces the south. In about 35° E. long., the chain is called Bulghar-Dagh, a very lofty range, through which the Sihun, the ancient Sarus, passes in a bed overhung on both sides by steep rocks 1000 feet high, which form the celebrated pass of Golek-Boghaz, anciently called Pylæ or Portæ Ciliciæ. During the time that Syria and the pashalik of Adana belonged to Mehemet Ali, pasha of Egypt, the Golek-Boghaz was partly in possession of the Turks, and partly of the Egyptians, both of whom had erected strong fortifications for the defence of their respective portions. The narrow tract between the Bulghar-Dagh and the coast has an alpine character, and under the meridian of Mezetli, the ancient Pompeiopolis, the principal chain of the mountains approaches the coast so closely as to

become visible from the sea in all its outlines. The whole country round the Gulf of Iskenderun is thus surrounded on one side by the sea, and on the others by lofty mountains, which, being traversed by a few long and narrow defiles, may be successfully defended by a handful of men against the most numerous armies. This tract abounds in fruit, wine, corn, timber, and other productions; and is watered by two navigable rivers, the Jihun and the Sihun, and many streams of less importance, among which the Tersus, or river of Tarsus, the ancient Cydnus, is the chief.

On following the Taurus in its western direction, we find the Kara-Dagh and the Allah-Dagh, two lofty peaks which are situated at only a little distance from each other, and north of the great chain, in the southern corner of the ancient Lycaonia. The name of the Taurus is here Ichili-Dagh. The Kara-Dagh, an isolated trachytic cone 8000 feet high, rises above a sandy plain, and is of barren and dreary appearance; a low ridge stretches from it north-east in the direction of Hasan-Dagh and Mount Argæus, with which it appears to be connected, forming part of the same system of elevation, and standing consequently on the edge of the great table-land, of which we shall speak hereafter. The Allah-Dagh stands on a base of thin-bedded semi-crystalline limestone, dipping south-east, and is connected with the chain of the Taurus, which here chiefly consists of Jura limestone. The Allah-Dagh is the culminating point of a lower range which runs west, and parallel to the Taurus. The whole of the Taurus, from the Allah-Dagh west as far as the Baba-Dagh (Mons Cadmus) in 29° E. long., has not yet been explored, but parts of its snowy chain have been traversed by a few travellers, or seen from the sea in the Gulf of Adalia.

The Baba-Dagh, or most western part of the Taurus, continues its original western direction under several names, and forms the watershed between the Mendereh

in the north, and the Dolomon and several smaller rivers which flow into the sea of Rhodes, the Gulf of Cos, and the Gulf of Mandeliyeh.

The whole tract, which lies between the range of the Taurus and the Mediterranean, and the width of which depends more on the curves of the coast than on those of the mountain-range, has an alpine character, though the mountains are not so high as the Alps of the Tyrol or Switzerland.

The Lycian part of this tract has for its northern limit the principal range of the Taurus, from which branches stretching south are so intimately connected with each other by transverse chains as to form a separate mountain system. The eastern part of it is a table-land. The tract south of a line between Horan or Oren and the bay of Makri (Glaucus) in the west, the river Xanthus and the sea, is filled up by mountains known by their ancient names of Cragus and Anti-Cragus, surmounted by peaks 3000, 3300, 5490, and 5940 feet above the sea. From Horan a range stretches south-east towards the sea, pressing close upon it with a steep summit of 4800 feet elevation. This is the ancient Mons Massicytus. East of it is the high table-land mentioned above, which has a mean elevation of more than 4000 feet, being part of the ancient district of Cibyratis, a name which in the Byzantine period designated the whole country of Lycia, the Cibyratæ being known as the best sailors among the Greeks, especially for ships of war. On this table-land there is a river that falls into a cavern and disappears. A few miles south of the cavern there is the Lake of Awelan, which has no outlet, is 3 or 4 miles wide and 10 miles long, and lies in the middle of a highly cultivated plain which is above 3000 feet high. Between the table-land and the Gulf of Adalia is the Taktalu-Dagh, the ancient Mount Solyma, with a snowy summit 7800 feet high. The range of Mons Massicytus and the table-land beyond it form a terrace which is lower than the Taurus, but higher than the

elevated tract along the southern shore. The tract along the shore is traversed by the little river Dembre; it is a terrace lower than the table-land, and rising with bold precipices above the sea.

2. *The Anti-Taurus, the great table-land in the interior, and its western continuation.*—From the summits of the Akjah or Commagenian Mountains the eye discovers beyond the river Tokhmah an immense mountain tract bordered on the horizon by a range of snowy peaks. This is the Anti-Taurus. Through its eastern and southern valleys the waters flow to the Euphrates, and in its western and northern parts are the sources of the rivers Kizil and Yeshil, which empty themselves into the Black Sea. The Anti-Taurus and the Mountains of Commagene are the natural eastern limits of Asia Minor. The tract is little known: the Gol-Dagh and Kara-Baba are two black basaltic mountains in the east, and on some of the neighbouring mountains snow is found during the whole year. North of these peaks there is a chain called Arab-Baba, and beyond it, in a most picturesque country, the high conical mountain of Sari-Chi-Chak, a Kurdish name meaning the "highest mountain," the easterly continuation of which is of basaltic character. In its neighbourhood are the Dumbugh-Dagh, which has a high rounded summit, the Erumbat and the Yamur-Dagh, which is frequently found covered with snow in July. Chalk is found in the environs of the Sari-Chi-Chak; west of it trachytic rocks are prevalent, and the Dumbugh-Dagh contains granite and euphotides abounding in iron. West of this tract there is a district of gypsum. Beyond this in the same direction rises the chain of Kara-Bel, the Paryadres of the ancients, covered with firs and oaks, the crest of which has an elevation of 5790 feet. The Paryadres is the most northern part of the Anti-Taurus, the principal chain of which stretches west as far as the *Argish* or Ergish-Dagh, the ancient *Argæus*, in 38° 30′ N. lat., 35° 20′ E. long., the loftiest peak of the peninsula, and once

a volcano. On approaching this cone the appearance of the country becomes gradually more wild; the hills consist entirely of trachytic rocks, and the surface is covered to a great extent with boulders of the same formation. Vesicular basalt, boulders of which overlay a yellow feldspathic rock, cover the shoulders of the mountain. Several of the hills are composed of black basalt, one being a conical hill, consisting of sand and ashes with a crater partly broken; then a rocky tract covered with juniper, where the real ascent begins. South of the highest peak stands the Kartun, an isolated rock of feldspathic trachyte, like a gigantic fortress. Some short distance farther up, the ground spreads out into an amphitheatre, surrounded by steep and lofty ridges of hills. Higher up snow lies in all the crevices, and dangerous glaciers are everywhere interspersed. At the highest attainable point of the mountain, though not the actual summit, is a mass of rock with steep perpendicular sides, rising to a height of 20 or 24 feet. The summit is a red bracciated scoriaceous conglomerate, containing fragments of trap, trachyte, and porphyry. To the north and north-east extensive glaciers stretch down in one unbroken slope into a sea of clouds, proving all ascent on that side to be totally impracticable. From barometrical observation, combined with the result of two angles of elevation taken from different points below the mountain, the height of Mount Arjish is 13,000 feet, a trifle more or less, above the sea. Strabo observes (p. 538, Casaub.) that Mount Argæus was covered with perpetual snows, but his statement that both the Euxine and the Mediterranean are visible from its summit is not true. Mount Arjish and Mount Allah-Dagh, which lies about 30 miles south of it, are the two most western promontories of the Anti-Taurus properly speaking, the principal chain of which is the Allah-Dagh. A ridge of hills that stretches south-west of Mount Arjish becomes gradually higher, forms the peaks of Hasan-Dagh and Karajah-Dagh, and is

connected with the Taurus by the Kara-Dagh and the southern Allah-Dagh mentioned above. The Arjish-Hasan-Karajah-Kara-Dagh chain in the north-western, the Anti-Taurus and its southern branches in the north and east, and the Taurus in the south surround the most eastern portion of the great table-land, and form an extensive basin, part of which is called the plain of Bor or Nigdeh. The eastern part of this basin is unknown to us; in the middle part are the sources of the Sihun, which flows south and traverses the Taurus as stated above; and the western part is a depression of the table-land which has no visible outlet for its waters, the greater portion of which is absorbed by the Ak-Gol, a lake of considerable extent situated east of the trachytic cone of Kara-Dagh, before mentioned. A small stream, which after the melting of the snow increases to a great body of water, flows out of the southern corner of this lake into a deep circular pool, 20 or 30 feet lower, and situated in a recess of the surrounding marble cliffs. The pool is about one-eighth of a mile in circumference, and has no outlet, nor does any stream emerge on the other or southern side of the hills, from which it may be concluded that the water must find a subterranean passage through the limestone and reappear on the south side of the Taurus, traversing Cilicia and flowing into the sea.

From the ridge between Arjish-Dagh and Allah-Dagh in the Taurus several chains stretch out in a western direction. The first as we proceed from north to south, is a continuation of Arjish-Dagh, and runs under several names, at first west and afterwards north-west, till it joins the alpine tract round Angora; along its northern and eastern sides flows the Kizil-Irmak. The second stretches out from the range between the Hasan-Dagh and the Karajah-Dagh, north-west as far as the Emir-Dagh in 38° 48′ N. lat., 31° 20′ E. long., and thence west to the Morad-Dagh (the ancient Dindymene), where it divides into different branches that screen the valleys through

which the Mendereh, the Ghiediz, and other streams flow into the Archipelago. The ridges thus indicated surround another much larger basin, forming likewise a depression of the high table-land, of which the greater portion seems to have no outlet; the eastern part has certainly none, its waters being swallowed up by the great salt-lake Tuz. In its north-western part the second ridge divides into two branches, about 38° 20′ N. lat., 32° E. long., and unites again at Emir-Dagh, after inclosing the basin of the Ak-Shehr and Iber lakes; the southern and probably principal chain is the lofty Sultan-Dagh. The Lake Iber receives a little river about 40 miles long, which originates not far from the Morad-Dagh, and has an eastern direction, which is rather unusual even with the inland rivers of Asia Minor. The waters of Lake Iber flow into the lake of Ak-Shehr. Between the Sultan-Dagh and its continuation in the north-east, the Taurus in the south, and the elevated ridge of the great table-land in the west, there is another basin, the largest of all, which seems to be subdivided into several smaller basins by transverse ridges. This basin contains most of the great lakes. Its south-western part is still unknown.

The group of lakes in this basin forms one of the most striking features of the table-land; they may be divided into two classes, the salt-lakes in the east and the fresh-water (partly salt) lakes in the west. Among the salt-lakes the *Tuz* is the largest. Its centre is in 38° 42′ N. lat., 33° 25′ E. long.; its direction is south-east to north-west and north; it is about 45 miles long and 18 miles broad where widest, but its northern extremity is much narrower, and connected with the main lake by a channel 5 or 6 miles broad. A ruined causeway connects the opposite banks; it is covered with a thick coat of salt lying over a coat of soft mud: when the waters are high it is submerged, when low it it quite dry. The banks are flat, the environs barren or covered with saline plants; along its eastern side extensive salt-marshes stretch from

north-west to south-east, and its southern and south-western shores are surrounded by impenetrable marshes partly covered with saline incrustations. The water has a specific gravity of 1·24, and it contains 32 per cent. of saline matter mixed with a considerable quantity of sulphate of magnesia and chloride of magnesium, with a little sulphate of lime and a trace of bromine. The water of the Dead Sea is stated by Dr. Marcet to have the specific gravity of 1·21, and to contain 24·5 per cent. of saline matter. Traces of volcanic action abound in the environs.

The group of the fresh-water lakes begins with the Ak-Gol in the south-east, which has been mentioned in the descriptions of the first basin of the table-land. It is about 7 miles long and 3 miles wide. West of it, in the third and largest basin, is the Soghla, the ancient Trogilis, in 37° 15′ N. lat., 32° 15′ E. long., which is about 8 miles long and 6 miles wide; and north-west of this is the lake of Bei-Shehr, the Caralitis Pasgusa of the Byzantines, in 37° 40′ N. lat., 31° 50′ E. long, a magnificent sheet of water, which is above 20 miles long and from 4 to 7 miles wide. On its western side the rocks rise abruptly from the water's edge. The two lakes are separated by a lofty ridge of limestone mountains, through which the Bei-Shehr River, the outlet of the Bei-Shehr Lake, has formed a narrow channel. This river empties itself into the Soghla Lake, which has no outlet, and is consequently the deepest part of this portion of the basin. North-west of the lake of Bei-Shehr are the lakes of Egerdir and Hoiran, which however are one lake; the northern part is called Hoiran, and the southern Egerdir. The narrow channel by which they are united lies in 38° 8′ N. lat., 31° 3′ E. long. Their combined length is about 30 miles, and each of them is about 6 miles wide. They are full of fish, and surrounded by steep and wooded hills, intersected by picturesque valleys and well-cultivated plains. The lake of Egerdir has a southern outlet, a deep, clear, and rapid river, the farther course of which is not known; but it is

conjectured that it has a subterranean course, and reappears on the south side of the Taurus.

If we consider the most prominent features of the great table-land of Asia Minor, the great number of extinct volcanoes, the masses of basalt and other volcanic productions, the innumerable basaltic cones which are spread in all directions on the plateau, the granite which protrudes through the overlying beds of limestone, and finally the salt-lakes, and an extensive tract covered with salt-marshes, we are inclined to believe that the whole was once an inland sea, like the Caspian and the Aral, filled with brackish water, and that the bottom of that sea was raised by volcanic action, whereupon the waters poured forth in all directions; and on their descent to the surrounding seas formed those deep valleys, which in the southern and western parts of the peninsula lead almost in straight lines from the edges of the table-land down to the Mediterranean, the Archipelago, and the Sea of Marmora. The diminished volume of the remaining waters might then have been absorbed, or have found subterranean escapes, till the tract remained in that state in which it is now. The great quantity of fresh-water shells found on the hills of the table-land are an objection to supposing it to have once been a perfect salt sea. It was either all brackish, or divided into several large lakes, some of fresh water and some of salt. It would be important to know, if among the fresh-water shells there are many belonging to such shell-fish as live indifferently in fresh and in brackish water.

3. *The Euxine Range.*—The country between the Anti-Taurus in the south and the Black Sea in the north is filled up with mountains, the centre of which seems to be in the southern part between the Gaur-Dagh, the Almali-Dagh, and the Gujik-Dagh, whence several chains stretch to the west and north; others stretching eastward connect these mountains with those of Armenia. We shall call this group, which has no general name,

the Lazian group, from the Lazes, a warlike nation of Caucasian origin, known in history from early times to the present day, and whose original abodes begin on the eastern slopes of these chains. The Lazian group, the third landmark of Asia Minor towards the east, is the watershed between the Euphrates, which flows into the Persian Gulf, and such of the rivers emptying themselves into the Black Sea as are situated east of the mouth of the Kizil-Irmak. On the eastern side of the crest of the Lazian group are the sources of the Choruk, a river about 150 miles long, which flows east and north till it reaches the Black Sea near Batum: its whole course is beyond the limits which are generally ascribed to Asia Minor. Several smaller rivers flow from its northern slopes into the Black Sea. One of these is the Surmel, a small river which has its mouth a little east of Trebizond. A chain of woody mountains, which detaches itself from the eastern part of the Lazian group, and stretches as far as the sea, runs east of the Surmel, and may be considered the natural boundary of Asia Minor on this side.

Among the different ranges which spring from the Lazian group we shall first mention that series of interrupted parallel chains which run west and almost parallel with the coast of the Black Sea. These chains are known under several names. Between Trebizond and the mouth of the Yeshil we find the Mason-Dagh, in the country of the ancient Amazons, whose name it retains with little alteration; and between that river and the Kizil-Irmak the Nebbian-Dagh with its southern parallel ranges, the Ak-Dagh and Tawshan-Dagh. They are surmounted by lofty peaks, which are, however, much lower than those of the Taurus and Anti-Taurus. The whole tract is a plateau, being the first terrace on coming from the Black Sea; above it run wooded chains, with an average height of 1500 feet above the level of the plateau. Towards the sea the plateau is broken into numerous

ridges and deep valleys, the beauties of which are highly praised by travellers, and the picturesque character of the scenery is most striking in the neighbourhood of the coast. The same character prevails west of the Kizil, from the point where it breaks through the chain of the Ada-Dagh. The Ilik-Dagh, with a mean elevation of 4000 feet above the sea, abounds with forests of fir-trees that yield excellent timber; and the Yeralah-Goz is a plateau of the same description, surmounted by ridges of about 3200 feet elevation. South of these plateaus lies the Alkas-Dagh, the summit of which was found covered with snow in October; and north of them are the Kaz-Yusuf-Dagh and others which border on the sea. In 41° 25′ N. lat., 33° E. long., is the plateau of Iflam, which begins in the south near the town of Zafaran-Boli, with several projections terminating abruptly in steep acclivities, on which high rock terraces tower one above the other. On the plateau there are many ranges, partly bare and partly wooded, and large tracts are covered with fragments of rock. West of this plateau, and divided from it by the river Orderi, is Mount Durnah-Yala-si, the ancient Olminius, which has rough slopes, wooded sides, and a bare crest at least 3000 feet high. Limestone and basaltic rocks abound in both of these mountains. Mount Durnah-Yala-si is connected with the Boli-Dagh and the Karam-Ali by the Sarkhun-Yala-si and the Yaila-Dagh (Mons Hypius) in the south, and the Kara-Dagh, the Owah-Dagh, and the Kopekchi-Dagh in the north. West of the Karam-Ali-Dagh is the Gok-Dagh, or Bythinian Olympus, and between them flows the Sakariyeh, or Sangarius. The Gok-Dagh is only a north-eastern beginning of the Keshish-Dagh, or Mount Olympus of Brusa (8000 feet high); its western projections stretch through Mysia and terminate in the promontories of the Sea of Marmora, the Hellespont, and the Archipelago.

From the junction of the Lazian Mountains with the Kara-Bel, which has been already described as a northern

continuance of the Anti-Taurus, some ranges stretch west, which the natives call Gemin-Beli-Dagh, and Kosch-Dagh. They are generally parallel with the 40th degree of N. lat., and their western continuation is the Chamlu-Bel. They rise above a high and mostly level table-land, and form the watershed between the Yeshil in the north, and the Kizil in the south. A large mountainous tract, of which we know very little, lies to the west, and is encompassed on the south-west and north by the great bend of the river Kizil: it is a table-land the edges of which towards the Kizil are intersected by deep valleys and ravines, and form a long sharply-indented wall of rocks of the grandest character. Pursuing the right bank of the Kizil, from 36° E. long., we first see the Ak-Dagh right opposite the snowy peak of the Arjish-Dagh, stretching west. Where the river Kizil first takes a north-west direction, the edge of the table-land is called Akjik-Dagh; farther on in the same direction is the Hasan-Dagh, a bare, sharp, two-headed peak; and still farther on the Baranli-Dagh, a lofty chain rising high above a table-land more than 3000 feet high, and covered with snow in April. This tract chiefly consists of granite, and has altogether a sierra-like aspect. North of the Baranli-Dagh is the fine plain of Sogher, and north of this lies the Begrek-Dagh, an extensive granitic district, composed of low, rounded, whitish, and bare hills, broken up by deep ravines, and covered with a scanty vegetation. The northern edge of the table-land surrounded by the river Kizil begins at Tokat with a chain of high limestone-hills surmounted by steep and craggy pinnacles, which lower as they stretch to the west, parallel with, but at a considerable distance from, the left bank of the river Tokat.

At Turkhal the chain is again high, and presents several steep cones. Thence to Zilleh, south-west, and thence north to Amasia is a high table-land, partly fertile, partly a barren plain composed of limestone, which is prevalent near Amasia. The craggy edges of this plateau towards

the river Tokat rise to a great height above the valley and are broken by deep ravines. From Amasia a range of low hills, consisting chiefly of peperite or volcanic sand, occasionally stratified, runs westward, and at 13 miles west of this town the hills rise into huge masses of rocks. From Chorum the table-land has the same character, being partly a level plain and partly a hilly tract, which to the northward is bordered by the Kirk-Delim Mountains, forming the most northern projection of the great table-land. The tract from Chorum south-west as far as the Begrek-Dagh is little known; its edge towards the river Kizil is more craggy and deeply cut than the sides of the table-land towards the Tokat, except the immediate environs of Amasia. About 30 miles west-south-west from Chorum are the rock-salt mines of Chayan-Ko, situated in a rugged ridge of hills of red sandstone conglomerate. The surrounding country, especially towards the river, is a succession of hills, consisting of red marls and gravel of a grey or bluish colour. South of Chorum, towards the interior of the table-land, there is a succession of winding valleys sunk below the level of the plateau, and lying between schistose rocks varying much in colour and consistency. The high plain has a barren aspect. Towards Yozgat, south of Chorum, there are deep ravines and many broken rocks, which amidst protruding masses of trap and other igneous formations bear evidence to the convulsions which have agitated the country. The waters flow north-north-east into the Tokat, a fact which proves that the slope of the table-land is towards the north. A little north of Yozgat is the Habak-Tepe, a lofty hill, and the central culminating point of the tract whence ridges radiate in all directions: some of them consist of coarse sandstone, passing into a loose conglomerate containing pebbles of blue crystalline limestone, secondary limestone, jasper, sandstone, and schistose rocks. South-west of Yozgat there is a range of mountains called Chichek-Dagh, which seems to be the edge of the second terrace of the table-land, on

ascending it from the west; the first being formed by the Begrek-Dagh and the Baranli-Dagh described above. The tract west of these two chains is likewise an elevated table-land, but broken by deep valleys and ravines through which the Kizil and the Sakariyeh have forced their way, and has in many places an alpine character. Many plateaus consist of trappean or granite rocks, upon which the red-sandstone appears to have been deposited as in a basin. Limestone occurs everywhere with masses of trachytic formation overlying it. On the plateaus there are rugged chains of mountains with broken and picturesque outlines; and high cones of volcanic origin bear evidence that this part of the country has been reduced to its present state by the action of fire, and that the work was completed by water. The plateaus, especially that of Haimaneh, are bleak and miserable, but the valleys are fertile, and yield corn, wine, and fruit of every description. Among the chains that stretch in all directions are the Ardij-Dagh, south of Angora, about 3600 feet high, and several others, forming one or perhaps more parallel ranges, interrupted by table-lands, which begin about 25 miles west of Angora, and stretch in a north-eastern direction for about 50 miles. The base of the hills is formed of an immense number of basaltic prisms of great regularity of form, some vertically disposed, others horizontally. Above these, masses of a similar character tower up in rocky pinnacles of fantastic shape, in which the colossal prisms are variously disposed, their distribution far surpassing anything at the Giants' Causeway. In the northernmost corner of these mountains, in the valley of the Kerimis and near its source, are the mines of Sahlun. There another table-land begins, the slope of which inclines towards the Black Sea, which is only 75 miles distant. The Kerimis flows south-west, and joins the Sakariyçh. The height of the plateau near Angora is 3000 feet above the level of the sea, and as it is one of the lowest, the average height of the surrounding table-lands

may be fixed between 3000 and 4000 feet. They are consequently about 2000 feet lower than the plateau of the great central table-land, the average elevation of which has been estimated at from 5000 to 6000 feet; and they are 2000 feet higher than the table-lands that occupy the northern margin of the peninsula along the Black Sea. It would therefore seem that the part of Asia between the Black Sea in the north and the Taurus in the south is composed of three terraces, which we may call the Euxine, the Galatian, and Phrygo-Cappadocian terraces. The beds of the rivers which originate on the Galatian terrace and descend through the Euxine terrace to the sea, are not (so far as we know) interrupted by steep transverse barriers, so as to make the waters flow down in cascades, whence we may conclude that the ascent to the terraces is gradual.

The tract between Angora and the upper part of the Sakariyeh, and thence westward as far as Mount Olympus, is very little known, except in its south-western part, which is traversed by the great road from Constantinople to Kutahiyeh and Koniyeh, which passes over a high plateau of barren aspect. The same character prevails in the middle district, between Kutahiyeh and the left bank of the Sakariyeh, with the exception that the eastern part, between Germa and Angora, contains large plains and some valleys, where the clayey soil is well cultivated. Chains have been seen there stretching from east to west. The highest portion of this table-land seems to be between Sewri-Hisar and Kutahiyeh, where the river Sakariyeh is supposed to have its origin.

In the western part of the peninsula, the Morad-Dagh has been described as the western promontory of the mid-land system of mountains, and the centre from which several high ranges stretch west and north. A lofty and wooded chain connects it with the Olympus of Brusa, separating the fertile valley of the Edrenos from the barren table-land of Kutahiyeh. A second chain branches

west under the names of Ak-Dagh (8000 feet) and Demirji-Dagh, and terminates with Mount Ida; two parallel branches of this chain stretch north; they are the watersheds between the Edrenos and the Simaul, and between this river and the small watercourses that flow into the Hellespont. A third chain runs first south, and then west, forming a barrier between the Ghiediz and the Mendereh, or Mæander. The western part of this chain branches, and forms the Kizilja-Musa-Dagh, the ancient Tmolus (4500 feet) in the north, and the Kestane-Dagh, the ancient Messogis (4500 feet) in the south, which screen the basin of the little Mendereh. The Baba-Dagh, a lofty chain that rises south of the Mæander, belongs to the Taurus range, as mentioned above: its height is not correctly known, but its snowy summit can be seen from the high table-land near Kutahiyeh, a distance of 150 miles. The tract between the Baba-Dagh and the Morad-Dagh is a high table-land, though not so high as the great central table-land; and it seems to be an intermediate terrace between that tract and the less elevated plateaus on the western coast. Its general aspect is barren, whole districts being covered with sand and fragments of volcanic products; basaltic cones rise everywhere, marble is abundant, limestone occurs generally, and in many places the surface of the table-land is undulating. This circumstance gives additional strength to the hypothesis that the central table-land was once a lake. The Morad-Dagh with its eastern chains, the Sultan-Dagh and the Emir-Dagh, and its western continuations the Ak-Dagh and Demirji-Dagh, consist of schistose and metamorphic rocks; most of the trachytic outbreaks occur on this line; the peaks are generally trachytic or basaltic rocks, and traces of former eruptions are very numerous. The chains by which the Morad-Dagh is connected with the Olympus, and between which the river Edrenos flows, begin in the south with trap dykes which have burst through crystalline limestone and yellow schist, traversed by numerous veins

of quartz; farther north the declivities show cliffs of white cretaceous limestone, with a horizontal stratification containing fossil fresh-water tertiary shells. Mount Olympus is supposed to consist of plutonic rocks, which are indicated at its northern and western foot by beds of limestone penetrated to some distance by quartzose granitic veins; the limestone is of the scaglia formation. Towards the lower part of the river Edrenos there are greenish trachytic rocks.

The general characters of the geology of the peninsula are simple. The eastern extremities consist of trachytic rocks, which towards the west are succeeded and partly overlaid by black volcanic breccia and peperite, containing angular fragments of trap or trachyte. The western part of the peninsular consists of calcareous rocks which seem to belong to the scaglia or cretaceous formation.

All these are horizontal, and the lower portion is a hard compact scaglia like that of Greece and the Ionian islands. This (the lower hard portion) contains no fossils, but is overlaid by beds 30 or 40 feet thick, containing a great variety of shells, amongst which are *Corbula* and *Modiola*. The beds vary considerably in hardness, and some are rather silicious.

THE RIVERS OF ANATOLIA.

Premising that the words Su, Chai, Irmak (meaning water or river, and very frequently used in the nomenclature of Turkish rivers) are here generally omitted as forming no essential part of the name, we proceed to enumerate the rivers of Asia Minor, from the Gulf of Iskenderun west along the coast of the Mediterranean, &c.

The Jihun (ancient Pyramus) has its sources north of Marash in the eastern extremity of the Taurus, flows south-west through a narrow valley, along the western base of the Durdun-Dagh, at the extremity of which it takes a sudden turn eastward, and falls into the Bay of

Ayas, in the Gulf of Iskenderun. Its ancient course from the point where it turns east was south-west and south-east, and its former mouth may still be traced near Cape Kara-Tash at the entrance of the gulf. Its whole length is above 100 miles. Its upper part is confined between steep rocks: it reaches the plain of Adana in 37° N. lat., but the hills of the Durdun-Dagh accompany it as far down as Mount Misis. The lower part of the Jihun is navigable.

The sources of the Sihun, the ancient Sarus, are in the central table-land in 37° 42′ N. lat., 34° 25′ E. long; its course is south-east through the Cilician defiles of the Taurus, and then south-west till it reaches the Mediterranean in 36° 44′ N. lat., 34° 53′ E. long. It enters the plain of Adana above this town, and is navigable in its lower part. The whole length is about 100 miles. The courses of these two rivers are very imperfectly known; they receive numerous feeders from the mountains among which they flow.

The Tersus (ancient Cydnus), a small river, originates near the southern entrance of the Cilician pass, on a plateau of 3800 feet elevation, and after a southern course of 46 miles, empties itself into the sea, a little west of the mouth of the Sihun, and a few miles south of Tersus, the ancient Tarsus.

The Gok (ancient Calycadnus) has its source in the Taurus, in about 37° N. lat.; it drains the western part of Cilicia, and after a south-eastern course of about 65 miles through a mountainous tract, joins the sea a little below Selefkeh, the ancient Seleucia.

Among the rivers mentioned by the ancients in Pamphylia are the Eurymedon (now the Kopri), which is described as a noble river; the Cestrus (now the Ak); and the Cataractes (now the Dudon). Some water-courses that have been observed on the central table-land, north of the Taurus, which flow from west to east, are supposed to be their respective sources. It is

not unlikely that the Eurymedon is formed by the southern outlet of the Lake of Egerdir mentioned before, and that it is swelled by the waters of Lake Soghla after they have forced their way through subterranean passages across the Taurus; for the volume of the water of the Eurymedon is too large for a river the length of which would not exceed 60 geographical miles, if its sources lay only in or a little beyond the great range of the Taurus.

The Xanthus, now Echen, the chief river of Lycia, has its sources in the snowy range of the Taurus, and flows due south as far as Horan, where it receives, on the left, a tributary of about 25 miles length, and much longer than the portion of the main stream above that point. From Horan the river winds through a beautiful valley between wooded hills and picturesque rocks in a south direction with a slight western inclination; and a little below the ruins of the ancient city of Xanthus it turns abruptly west, and falls into the sea after a course of about 50 miles. Below Horan it is crossed by a fine bridge of five arches.

The next river to the Xanthus is the Dolomon, which is the ancient Calbis. Part of it flows in a deep ravine through a plateau 5000 feet high. Its course, which at first is from east to west, soon becomes south-west, but nearly the whole of it is unknown, except the part near its mouth, a little north-west of Cape Ghinazi. The whole length is nearly 100 miles.

The Mendereh, or *Mœander*, springs from a small lake fed by subaqueous springs, and surrounded by steep and lofty mountains, in 38° N. lat., 30° 20′ E. long., in a chain (Mons Aulocrenas) stretching from east to west towards the Baba-Dagh, and bordering the elevated plains of Dinair. The town of Dinair (the ancient Apamea Cibotus), is close by, and in its environs is the spot in the plain where Marsyas paid so dearly for his presumptuous rivalry of Apollo (Xenophon, "Anabasis," i. 2); but the cavern where Apollo hung up the skin of his rival seems

to have fallen in. The course of this river is 28 miles north-west, through the high plain of Dinair; 18 miles south-west, and 23 miles north and north-west, partly through high plains, partly through a deep rocky valley; 126 miles west-south-west, in numerous windings through a beautiful valley that becomes wider and more fertile as it approaches the coast. Its tributaries are, on the right, the Sandukli, which comes from the south-eastern continuation of the Morad-Dagh, and the Banas, 57 miles long, which rises at the foot of the Morad-Dagh, and joins the Mæander, where this river begins its regular west-south-west course. The Kopli, a small river, joins the Banas immediately above its junction with the Mæander. On the left, the feeders are the Choruk (the ancient Lycus), a small river flowing from east to west; the Kara-Su, a still smaller stream, which comes down from the Baba-Dagh; and the Chinar (the ancient Marsyas), the sources of which are about 40 miles south-south-east from its junction with the Mæander, in the western continuation of the Baba-Dagh.

The Little Menderch, the ancient Cayster, has its source in the angle between the Kestane-Dagh (Messogis) in the south, and the Kizilja-Dagh (Tmolus) in the North. It falls into the Gulf of Scala Nuova, after a western course of 69 miles.

The Kodus or Ghiediz, the ancient Hermus, has its sources in the Morad-Dagh, south-east of the town of Ghiediz; its course is 23 miles west, 41 miles south-west, 115 miles in a generally west direction, and 17 miles south-south-west, till it falls into the bay of Smyrna, which it loads with its clayey and sandy deposits. In its upper part, the only river of consequence that joins it on the left is the ancient Cogamus, the source of which is in 29° E. long. and its mouth a little east of Sart, which marks the site of the ancient Sardis. It joins the Hermus after a north-west course of 50 miles, through a beautiful and highly-cultivated valley. Immediately to the west

of Sart flows the Pactolus, celebrated for its golden sands. Opposite Sart, not far from the right bank of the Hermus, is the Gygean Lake; and between this and the river the numerous tumular monuments of ancient Lydian kings. This group of tombs is called by the Turks Ben Tepeh, or the Thousand Hills. On the right, the Hermus receives in its upper part the Aineh and the Demir (the ancient Hyllus), and in its lower part it receives the Ak. The middle part of the Hermus, between the mouth of the Cogamus and the sudden turn which it makes near its mouth to the south, is very imperfectly known.

North of the Hermus are the Bakir, the ancient Caïcus; the Tuzla, which is the Satniocis, and the Mendereh, the famous Scamander, flowing west; the Kojah, which represents the ancient Granicus, and the Ghonen, which seems to be the Æsepus, flowing north into the Sea of Marmora.

The most important river which flows into the Sea of Marmora is the Edrenos, the ancient Rhyndacus, which is formed by the junction of two rivers. One of them, the Rhyndacus, or Edrenos Proper, originates in the lofty chain which connects the peaks of Morad-Dagh and Ak-Dagh, and after a winding north-west course through a beautiful valley falls into the large lake of Abullionte (Apollonias); it issues from the northern corner of this lake, and empties itself into the gulf of Mudanieh or Cios, after a course of 140 miles. The other branch is the Susugherli, the ancient Macestus, which comes from Simaul, at the foot of the Ak-Dagh, where it is called the Simaul: it flows west for 69 miles, and north for 80 miles, and joins the Rhyndacus, a little below the point where it issues from the lake of Abullionte. The Rhyndacus also receives on its left bank the Kara-Dere, the outlet of the great lake Maniyas, the ancient Melitopolitis. Between the Rhyndacus and the Sakariyeh there are only small rivers, the Nilufer or Lufer, near Brusa, and the outlet of the lake of Iznik, the ancient Ascania, which is 10 miles long and 4 miles wide.

The *Sakariyeh*, the ancient Sangarius, is the second in magnitude of the rivers of the peninsula. Its sources are on the high table-land, south-east of Kutahiyeh. Its general course is north-east till it is joined by the river Enguri or Angora, which flows westward, draining the mountainous track round Angora. After receiving the Enguri, the river flows north-westward towards the lake Iznik, as far nearly as 30° E. long.; it then takes a general northern direction between the Karam-Ali-Dagh and the Gok-Dagh, and continues on this course to its mouth in the Black Sea, in 41° 8′ N. lat., 30° 42′ E. long. The most western part of the river is in about 30° 10′ E. long., and not far from this point the stream is fordable at a place called Surkun, that is "ford." From a point in the lower part of its course, where it bends eastward for a short distance, the river formerly ran northward, and the old bed is still visible. A fine bridge of ancient construction, 1087 feet in length, leads across the old bed, in which a small arm of the Sakariyeh still flows north. Near this spot the main branch is crossed by a wooden bridge. Near Kiwa or Geiwa, where there is a stone bridge over the river, and where the great roads from Constantinople and Iznik to Angora meet, the Sakariyeh flows for 13 miles through a gloomy intricate defile, with high and rugged precipices rising perpendicularly on both sides. The summits of the mountains are covered with excellent timber, oak, beech, sycamore, and ash. The Sangarius, at this part of its course generally about 100 yards wide, contains an immense body of water and flows with very great rapidity. The river, at the wooden bridge above mentioned, is 372 feet wide, with an ordinary depth of 2 feet, and a current of about 3 miles an hour; it is occasionally subject to considerable freshets. The principal tributaries of the Sakariyeh, besides the Enguri, are, on its left bank, the Purşek, the ancient Thymbrius, which comes from the Morad-Dagh, and after a northern and north-eastern course of about 57 miles, passing by Kutahiyeh and

Eski-Scheher (Dorylæum) joins the Sakariyeh about 11 miles below this town; and the Yenisheher, which joins the main river near Geiwa, after a north-eastern course of 57 miles; it comes from the Olympus of Brusa. The Kermis, which flows south-west from the Izhik-Dagh, falls into the Sakariyeh on its right bank, a few miles west of the junction of the Enguri, after a course of 40 miles. The length of the Sakariyeh is about 250 miles.

The mouth of the Filiyas, the ancient Billæus, is 41° 20′ N. lat., 32° 6′ E. long. Its lower part only has been visited in recent years, but it is described as a noble river flowing through a beautiful valley, from south to north. We know nothing of its upper part except a portion of it near Zafaran Boli, where there is a wooden bridge over it. It rises in the Boli-Dagh, along the northern base of which it runs eastward under the name of the Hamamli for about 70 miles, and then breaking through a range which has hitherto screened its left bank, it flows north-west, receiving the Saghanli about 7 miles west of Zafaran-Boli. From this point the river flows west, and afterwards turns to the north. A little east of the mouth of the Filiyas the Chati, the ancient Parthenius, enters the Black Sea. Of the course of this river we know nothing.

The *Kizil*, the ancient *Halys*, is the largest river of the peninsula. Its sources are in the Gemin-Beli-Dagh, in 40° N. lat., 37° 40′ E. long., in the northernmost part of the second or Phrygo-Cappadocian terrace. The river at first flows south, but it soon takes a south-west direction, which it pursues for about 170 miles, through a picturesque valley, along the northern border of the great central table-land. This part of its course is known only in part. In 38° 40′ N. lat., 34° 4′ E. long. it turns north-west, with some western bends, and flows in that direction as far as 40° N. lat., 33° 34′ E. long, for about 86 miles. This part is likewise imperfectly known. Thence it flows on a general north-eastern course as far as Osmanjik, for 115 miles: this part is much better known.

From Osmanjik its course is supposed, and has partly been observed, to be west for about 23 miles, and thence north-east for about 34 miles, as far as the defile of Kara-Tepe, a narrow pass overhung by huge precipices. A portion of this pass is formed by a bend of the main river, and another portion by the valley of the Gok, called here Costambul. From this spot the river flows south-east for 17 miles, thence north-east for about 46 miles, and empties itself into the Black Sea by two navigable channels, near 41° 43′ N. lat., 36° E. long. The whole length of the river is about 500 miles. The Kizil brings down in its freshets a great deal of mud, the deposition of which has formed a delta, and a long flat alluvial tract in the last portion of its course. Its waters discolour the sea for 6 or 7 miles from the embouchure. We know of no considerable tributaries to this river except the Gok (ancient Amnias), which rises in the mountains west of Kastamuni, and has an eastern course of about 81 miles, through a fertile well-cultivated valley, bordered by high rocks. The Kizil does not appear to be adapted for regular navigation by large craft; the waters are low in the dry season, but they greatly increase in winter and spring, when the snow melts on the high mountains which supply its tributary streams.

The *Yeshil*, the ancient *Iris*, is the last considerable river in the eastern part of the peninsula; it is very imperfectly known. Its sources are on the northern slopes of the Lazian group, near 40° N. lat., 39° E. long., and it enters the Black Sea below the fortress of Charshembeh, after a north-western and at last a N. course of 100 miles. It receives on the left the Tokat, the ancient Lycus, the sources of which lie north of the city of Tokat, whence it flows west, with occasional bends to the north as far as Amasia, a distance of 80 miles, and from Amasia, east and north-east, for 35 miles. The Tokat receives on its left bank the Choterlek, which rises in the Kirk-Delim Mountains, north of Chorum, and joins the Tokat after an

eastern course of 69 miles, through the nearly unknown plateau mentioned above. A little below its junction with the Tokat, the Yeshil descends through a narrow pass into the Euxine terrace : this is another spot where traces of former cataracts may be discovered. The Yeshil enters the sea by several mouths, the principal of which is navigable, and the surrounding tract is a delta formed by the deposits of this river. The Thermeh (ancient Thermodon) enters the Black Sea a short distance east of the Yeshil. The Tireboli rises in the Lazian group, in 40° 20′ N. lat., 39° 45′ E. long. ; its mouth is a little east of the town of Tireboli, the ancient Tripolis, 41° 2′ N. lat., 38° 48′ E. long. ; its direction is from south-east to north-west. Many of these rivers abound in fish : the sturgeon is taken at the mouth of the Yeshil.

THE LAKES OF ANATOLIA.

Besides those mentioned in the description of the great central table-land, there are the following :—

The Lake of Abullionte, the ancient Apolloniatis, lies on the western border of Bithynia, between Mount Olympus and the gulf of Mudanieh : it stretches from east to west 20 miles, and 12 miles from north to south. On the south it is bordered by the beautiful wooded mountains of the Olympus, on the north-east and north by trachytic hills, and towards the north-west by marshes. The north-eastern portion is studded with many islands : on one of them, which is connected with the mainland by a wooden bridge, stands the town of Abullionte, the ancient Apollonia ad Rhyndacum. The town, some of the islands, and the surrounding countries, are full of ancient ruins. The lake abounds with fish, and supplies the markets of Brusa and Constantinople.

The Lake of Maniyas, the ancient Lake of Melitopolitis, is west of that of Abullionte, on the eastern borders of Mysia ; it is 14 miles long from east to west, and 8 miles

from north to south. The shores are low and marshy, but the tract north and west of it is well cultivated, and produces good wine.

The Lake of Buldur, the ancient Ascania of Pisidia, situated in 37° 45′ N. lat., 30° 25′ E. long., takes its modern name from the town of Buldur, which stands near the southern part of it, and contains 5000 houses. The length of the lake from the north-east to the south-west is about 17 miles, and its width about 4 miles. The southern shore is flat, and the banks are very muddy. The neighbourhood produces much gum-tragacanth, which is obtained from a low prickly plant resembling furze, by making an incision in the stem near the root, and cutting through the pith, when the sap exudes in a day or two, and hardens in the opening, after which it is collected. The water of the lake is brackish, with a strong taste and smell of sulphuretted hydrogen gas; it is very shallow, and abounds with wild-fowl.

The Lake of Chardak, the Anaua of Herodotus (vii. 30), supposed to be the salt lake Ascania, mentioned by Arrian ('Anabasis,' i. 29), is situated about 14 miles north-west of the Lake of Buldur; it is about 20 miles long from east-north-east to west-south-west, and from 2 to 4 miles wide: it is surrounded by high hills, with precipitous and lofty cliffs. In summer the lake is very shallow, at least near the banks, which are muddy, but in winter the water rises. In the dry season the water is perfectly saturated with salt, which crystallises on the surface, and is scraped off the mud with large wooden spades.

The Lake of Iznik, the ancient Lacus Ascania of Bithynia, is situated 10 or 12 miles east of the head of the gulf of Mudanich, into which its outlet runs. This lake, the clearest and most picturesque sheet of water in the peninsula, is about 15 miles long from east to west, and from 4 to 6 miles wide. The country in the immediate vicinity of the lake is a natural garden, abounding with flowers and evergreens—the dwarf daphne, many

varieties of laurustinus, and among them the strawberry-tree (*Arbutus unedo*), which here grows so large and so abundantly that it forms the principal firewood of the inhabitants. At a little distance to the south, the basin of the lake is screened by a grand mountain-ridge, backed by the snowy range of Olympus. The modern name of this lake is taken from the little village of Iznik, situated within the walls and among the ruins of the ancient city of Nicæa.

THE CLIMATE AND PRODUCTS OF ANATOLIA.

No general description would convey a correct idea of the climate of Asia Minor, which presents probably more varieties than the peninsula of Spain and Portugal, with which it may also be compared as to extent of surface. In the numerous chains of lofty mountains which traverse them, in their high plateaus, and in the diversity of climate depending on the configuration of surface, there is a considerable resemblance between the two countries. The western shores of Asia Minor have been celebrated in all ages for their genial climate, and for the fertility of their valleys. The summers here, as generally throughout Asia Minor, are hot; but even on the west coast severe cold is occasionally felt in winter. The snowy peaks of Taurus continue even to the valley of the Mæander on the south side. The high plains of the interior are excessively cold in the winter season.

The northern shore of Asia Minor being exceedingly humid, parts of the mountain slope from the edge of the high plains are covered with magnificent forest-trees of great variety. The forest stretching west from Boli, the great and almost inexhaustible source of supply to the Turkish navy, contains ash, elm, plane, poplar, larch, and beech, and some oaks of large size. It is known to the Turks by the significant name of Aghach Denisi, or Sea of Trees. Few parts of the world present, within the

same limits, more striking contrasts than the Sea of Trees and the high levels of Lycaonia, which Strabo characterises by the expressive terms of "cold and bare."

On the southern shore the immense mass of Taurus leaves between the Mediterranean and its base a comparatively narrow slip, and gives to the climate of the southern coast, combined with its geographical position, a character very different from that of the north side of the peninsula. The amount of rain is much less, and the summer-heat of the coast is excessive. Some portions of the Lycian shore, where the mountains press close on the sea, have no water from April to November, but what can be kept in reservoirs. The winter torrents cease with the rains. The mountains of Karamania are in general well wooded, and Alexandria is mainly supplied with fuel from them. The mountains of Taurus contain a great variety of forest-trees and shrubs. Volcanic products are abundant in the peninsula; and the Greek name Κατακεκαυμένη, or "burnt," which was applied to the district on the confines of Lydia and Phrygia, preserves perhaps the only historical record of great physical revolutions in this region. The western part of Asia Minor has also often experienced most destructive earthquakes.

Olive and mulberry-trees are extensively cultivated for the production of oil and silk; and the white poppy, from which the best opium is made, is grown in vast quantities, especially in the neighbourhood of Afiom. Tobacco is an important crop; it is grown of the best quality near the town of Melasso, to the east of the gulf of Mandeliyeh. Vast quantities of figs, grapes, and other fruits are grown. Melons grown on the margin of the lake of Abullionte are exported in great quantities to Constantinople. Other products include rice, barley, maize, sugar, madder, cochineal, valonia, mastic, wool, cotton, goats'-wool, some linseed, and flax. The principal trading places are Smyrna, Brusa, and Trebizond; but this last town is more properly an Armenian port. Fairs

for the sale of imports and exports are held in many of the smaller ports, which carry on a considerable coasting trade. England, Austria, France, and the United States are the principal countries traded with. The chief exports are dyestuffs, oils, raw cotton, dried fruits, wool, opium, wax, silk, hides and skins, sponge, gums, carpets, goats'-hair, &c. The imports include woven tissues, coffee, metals, hardware and cutlery, pottery, glass, rum, &c. The manufactures of the country are confined to carpets, leather, and some cotton and woollen stuffs.

Mining skill is in a very low state in this country. There are copper-mines near Bakir-Kurehsi, not far from the Black Sea, in the plateau of Iflani; near Chalwar, on the eastern side of the Lazian group; near Tireboli, on the Black Sea; near Tokat; and at many other places; iron-mines near Unieh, on the Black Sea; silver with copper, in the mines of Tireboli; silver and lead at Denek, in the Begrek-Dagh, east of the Kizil. Nitre is got at Kara-Bunar. Rock-salt abounds in all parts, especially in the north-east and round Angora. Hot springs occur in all the provinces; those of Brusa are celebrated, and are even visited by European patients. The hot springs near Eregli issue out of narrow crevices on the summit of a ridge of low hills, near the Ak-Gol lake, and form a succession of small pools and conical hills, which last have been created by the gradual deposit of the earthy matter with which the water is charged. The confined water and gases are heard bubbling under ground. Some of these springs deposit pure salt round their orifices, others pure sulphur, and others sulphate of lime, or gypsum, which is the most frequent. Other mineral products are limestone, gypsum, marble, granite, meerschaum, clay, &c.

DISTRIBUTION OF RACES IN ANATOLIA.

In the district of Lycia the Greek population is not one-tenth part of the population, and in Bithynia the Turks are at least three times as numerous as the Greeks. The

Greeks are more numerous in the western part than the east, and they form a considerable portion of the population of all the commercial towns, and several districts in the western part are exclusively inhabited by them. All those who call themselves Turks are not of Turkish origin, and there are several hundred thousand so-called Turks who are descended from Greek ancestors. There are also Mohammedan Armenians in the east. Those among the Turks who style themselves Osmanlis are settled in the country, and lead an agricultural life, though many of them live during the summer-time in tents, which they carry to those places which are used exclusively for agricultural or pastoral purposes, leaving their houses empty in the villages. The Turkomans are most numerous in the east; but such among them as are shepherds, and lead a real nomadic life, wander as far as the table-lands of the western provinces. Yuruks are nomadic Turks, probably of the same origin as the Osmanlis, and are more numerous in the northern, middle, and eastern parts. In the same districts there is a considerable number of Kurds, who are either permanently settled, or wander with their herds to the western table-lands, and sometimes as far as Brusa. Religious prejudices are less strong in the peninsula than in European Turkey, and generally the population of Anatolia may be considered the best part of the population of the empire.

MEANS OF COMMUNICATION IN ANATOLIA.

Of roads, in the common acceptation of the term in civilised states, there are none in the Turkish empire. In Asia Minor there exist some traces of Roman roads, and of Roman bridges; many are still in use. The mode of travelling in the country is on horseback exclusively, and all traffic with the interior, as well as the transit trade with the east, is carried on by caravans of dromedaries or camels. Some of the most important routes are here given.

Across the north of Asia Minor runs the great route from Constantinople to Amasieh, starting from Scutari and skirting the coast as far as Izmid, whence it runs to Boli, through Osmanjik, Marsiwan, and Kawsah, where the roads from Kastamuni and Samsun meet it. From Kawsah the route turns to the south-south-east, and after reaching Amasieh is continued through Zilleh, to Tokat and Siwas, whence it branches off north-east to Trebizond, and eastward to Malatiyeh and the Euphrates. From Trebizond a coast road runs through Unieh and Samsun to Sinub or Sinope.

From Izmid, mentioned in the preceding paragraph, a second route runs south-east, crossing the Sakariyeh at Geiwa, and reaching the river again near the junction of the Enguri; whence a branch runs eastward through Angora, which is continued through Chorum to Amasieh, whilst the original route keeps on south-easterly to the Ardij-Dagh where it divides into two branches. One of these runs by a mountain-pass to the eastern side of the Baranli-Dagh, and thence down to Kaisariyeh, whence it is continued eastward to Malatiyeh. The other branch runs on in the original south-east direction across the Ardij-Dagh to Kulu, where it divides also into two branches, running round the Tuz Lake and meeting again at Ak-Shehr, whence, through Nigdeh and the Cilician pass, it reaches Tarsus and Adanah, and skirting the northern and eastern shores of the gulf of Iskenderun, runs down to Antioch through the Beilan pass in the Amanus Mountains.

Again, a third route runs from Izmid southward through Iznik and Kutahiyeh to Afiom, whence one branch runs south-east through Koniyeh to the south coast, and another through Dinair and Buldur to Adalia.

From Smyrna the overland route to Constantinople crosses the mountains northward into the valley of the Susugherli, which it descends to Muhalich, and thence north-east to Mudanieh, whence the Sea of Marmora is

crossed. From Mudanieh, a route, running eastward through Brusa, connects this with the preceding route.

The great eastern route from Smyrna runs through Sart, up the left bank of the Cogamus, across the mountains into the valley of the Mæander, thence to Afiom, and so on to Angora, crossing all the great southern routes already mentioned.

Another route from Smyrna runs southward to Scala-Nuova, Aidin, and Melasso, and thence eastward to Buldur and Isbarta, connecting several short routes that communicate with points on the south-western part of the coast.

PRINCIPAL TOWNS IN ANATOLIA.

The principal towns in Anatolia are Brusa, Smyrna, Angora, and Siwas, of which short descriptions are here appended.

Bru'sa, Pru'sa, Bu'rsa, or Broussa, stands at the northern base of the Bithynian Olympus, in a most picturesque and fertile country. Prusa is mentioned by Strabo (p. 564, Cas.) as a well-governed town, situated near the Mysian Olympus, which is the same as the Bithynian. Strabo (p. 564) says that Prusa was founded by Prusias, who carried on war against Crœsus. Pliny ("Hist. Nat.," v. 32) says that it was built by Hannibal, alluding to the time when he was staying at the court of Prusias, king of Bithynia. The town rose to importance only after its capture by Orkhán, the son and successor of Osmán, the first sultan of the Osmanlis, who took it by capitulation a few weeks before the death of his father, in A.D. 1326. Prusa surrendered after a blockade of ten years, effected by means of two castles which Osmán built in the immediate neighbourhood of the town, one of which, the castle of Balabanjik, is still standing.

Brúsa became the residence of Orkhán, and this sultan, as well as Murád I., Bayázid I., and Mohammed I., and several Turkish princes were buried in the new capital.

It continued to be the capital of the Turkish empire to the capture of Constantinople in 1453, though during twenty years previous to this event the sultans used to reside at Adrianople. During several centuries it was the principal seat of Turkish learning, and its divines were notorious for their prejudices and fanaticism; but its inhabitants are now distinguished for their toleration and hospitality towards Europeans. The population is about 60,000, including about 9000 Armenians, 3000 Greeks, and 2000 Jews of Spanish descent. A rapid torrent flows along a deep gap through the town, and divides the Turkish quarter from the Armenian. The streets are narrow and tolerably clean for a Turkish town: the houses are mostly built of wood and clay. Brúsa is well supplied with fountains, and contains several very fine buildings, among which the great mosque is the most remarkable: in the mosque of Daúd Monasteri, rather a small building, is the tomb of Sultan Orkhán. The total number of mosques exceeds 200. There are also large bazaars, several khans, colleges, Christian churches and schools, and more than one synagogue. In the centre of the town is the citadel, built on a rock. Brúsa is one of the most important commercial centres in Turkey; it has an important trade in raw silk, and its industrial products comprise satin, carpets, longcloths, cotton and cotton-twist, tapestry, &c. The trade in corn, opium, and meerschaum clay, which is quarried in the neighbourhood, is important. The bazaars are well stocked with all kinds of British and other European manufactures, which are imported through Mudaniyeh, the port of Brúsa, six leagues distant on the sea of Marmora. The trade with Constantinople, Smyrna, and the interior of Asia Minor is carried on by caravans. There are several permanent European residents in Brúsa. The beauty of the environs of Brúsa is celebrated, but the principal features of the town as well as the environs are the hot springs. The chief source is about a mile and a half west of the town;

it rises out of a calcareous tuff or travertine, the formation of which is still going on in some places. Abd-el-Khadir, the Arab chief, so long confined in France by the policy of Louis Philippe, and at last restored to liberty by the emperor Napoleon III., retired to Brúsa on his departure from France in 1852.

SMYRNA, the most important city of Asia Minor, and the centre of the Levant trade, rises in the form of an amphitheatre from the sea, and upon the hill above it (called Mount Pagus) there is an old castle which forms the citadel; over one of the gates there is a head which either represents Apollo or an Amazon, and over another a Roman eagle. It is distant about 210 miles S.S.W. from Constantinople, at the bottom of a capacious bay, which has excellent anchorage, and is so deep that large ships come close to the wharfs. The bay extends into the city, and its margin is lined with quays, on which there are handsome stone houses, so that the city, with its domes and minarets, has a fine appearance on approaching it from the bay; but a great part of the interior, and especially that part which is built on the side of the hill, consists of low wooden houses, and the streets are ill-paved, narrow, crooked, and dirty. The inhabitants are probably about 180,000, of whom about 80,000 are Turks, 40,000 Greeks, 15,000 Jews, 10,000 Armenians, and about 5000 Franks. The Franks reside in Smyrna for purposes of commerce, and occupy, for the most part, the best quarter of the city near the bay. The Armenian quarter is on the lower slope of the hill, the upper part and western side are occupied by the Turkish part of the population. The Jews are confined to two small nooks between the Turks and Armenians. Except in the Frankish quarter the houses are chiefly built of wood, and only one story high. The town extends nearly two miles round the bay. The warehouses on the marina, or quays, are whitewashed. The port is frequented by ships from all nations, freighted with valu-

able cargoes both outward and inward. The chief imports are, coffee, sugar, indigo, tin, iron, lead, cotton-goods, and cotton-twist, rum and brandy, spices, cochineal, and a variety of other articles. The principal exports are, silk, opium, drugs and gums, galls, cotton-wool, valonia, fruit, figs and raisins. Besides these exports there are various kinds of skins, goats' wool, olive oil, wax, and a variety of other articles. The Turkish government has imposed hardly any restrictions on commerce; the duties are few and light. Most European states have consuls at Smyrna. The city and its territory are governed by a pasha. There are large well aired barracks near the shore inclosed by an iron palisade. A British military hospital was established here in 1855. On the castle hill are some remains of ancient Smyrna, consisting of fragments of ancient columns which are used in the construction of graves in the large Turkish cemetery; portions of the old walls built into the walls of the castle, which stands on the site of the acropolis on the summit of Mount Pagus; some relics of a temple within the inclosure of the castle; the stadium, in which St. Polycarp suffered martyrdom, and which is formed in the side of the hill; and numerous columns, busts, cornices, and other architectural fragments, built into the walls of the Turkish town. Within the castle inclosure are the ruins of a mosque, which is said to have been the primitive church of Smyrna. At some distance to the south of the city runs the Meles, which is connected with the memory of Homer, and which is crossed by an aqueduct. The mosques of Smyrna are open to Christians; from the ceiling of the principal mosques are suspended by brass chains a vast number of lamps, ostrich eggs, and horsetails. The caravan bridge over the Meles, along which, especially in the fruit season, strings of camels are constantly passing, is a point of great attraction with both Turks and Christians, and many coffee-houses are built along the banks of the immortal river. The neighbourhood of

Smyrna is beautiful and fertile, but unsafe, owing to the prevalence of brigandage. Strollers are frequently carried off to the hills and detained till they are ransomed by their friends. About 5 miles east of the city, on the road to Sardis, at a place called Nimfi, is a gigantic human figure sculptured in relief, on a panel cut into the flat surface of the rock. This seems to be the memorial of Sesostris, described by Herodotus (ii. 106). A journal is published in Smyrna in the French language. Steamers and sailing-vessels ply to Constantinople, Marseille, Malta, and the chief ports of the Mediterranean.

ANCY'RA (now *Angora*, or Enguri), was one of the most important cities of Asia Minor. It contains 9000 houses occupied by Turks, 1500 by Armenian Catholics, 300 by Schismatic Armenians, and 300 by Greeks. The streets, as in all Turkish towns, are narrow. Many of the houses are built of mud; some are large and have court-yards. The chief building is the citadel, which is defended by a triple line of fortifications. The outer and middle walls are built chiefly with fragments of white marble, which formed parts of the ancient buildings of the city. The middle wall is strengthened by square towers, and between it and the outer wall is a large space, occupied by about 5000 of the population. The castle stands on the pinnacle of the rock, and is built chiefly of dark porphyritic trap (of which the hill consists), with a few blocks of marble; here are two gigantic statues of lions couchant. The greatest curiosity at Angora, in the estimation of the inhabitants, are the numerous subterraneous passages, which extend in various directions; they were formed in ancient times, and some of them are said to be of great length.

Angora is the chief residence of the Armenian Catholics in Asia Minor. Its commerce mostly consists in articles manufactured from the bright silk-like wool of the Angora goat. The exports include also yellow berries, red dye, gums, wax, honey, and goats' and cats'-skins. At the

beginning of the last century, there were resident merchants here from England, France, and Holland.

SIVAS, or SIWAS, is the capital of a pashalic which comprehends the whole eastern part of Asia Minor, and which still bears the name of Rûm. The valley of the Kizil-Irmâk, the ancient Halys, here spreads out into a broad and fertile plain. The situation, being level, with the exception of only one small circular elevation in the south-west, the whole city is seen to much advantage when approached from the north. It is interspersed with trees, without being buried in them, like most of the towns in these parts. The great number of chimneys seen above the house-tops indicate that the winter is severe; and the inhabitants affirm that it is as cold as at Erz-rûm. The houses are well built, partly tiled, partly flat-roofed, and intermingled with gardens. These, with the numerous minarets, give a cheerful aspect to the place. The bazaars are extensive and well stocked with goods, including many of British manufacture. The consumption of Sivas itself, and the circumstance of its furnishing supplies to many places, causes its transit-trade to be extensive. Sivas is inhabited by about 6000 families, of whom 1000 or 1100 are Armenians, and the rest Moslems.

ARMENIA.

ARMENIA belongs chiefly to Turkey, but partly also to Russia and Persia. It formed in ancient times a powerful kingdom, the limits of which, undefined by any permanent natural features, were subject to many changes in the course of its history. Although the term is now a mere geographical expression and of no very certain import, it may serve to introduce a notice of this part of Asia to which one of the most widely-diffused traditions among mankind points as the cradle of the human race; and whoever reflects upon the great physical features of the country and its peculiar geographical position, must confess that a spot more fitted for rearing a vigorous primal stock, and at the same time affording greater facilities for the rapid dispersion of mankind, could not be pointed out on the surface of the earth. Its high but fertile plains yielding abundance of corn of the finest quality; its pastures on plain and mountain sustaining fine breeds of horses and kine; its valleys in which the grape, the apple, and other common fruits seem to be of indigenous growth; and its cold but healthy climate—attest the first part of our assertion. For proof of the second, one need but to unfold the map and see to the northward routes along the Euxine and the Caspian, leading respectively to Eastern and Central Europe on the one side and to Central and Upper Asia on the other; to the southward the plains of Mesopotamia and Northern Syria, one sloping towards the Persian Gulf, the other leading to the Levant and Egypt; on the east high plateaus and mountain passes sloping down into the vast table-land of Iran; and on the

west the wide plains of Asia Minor opened out a ready way for the moving tribes to the shore of the Ægean.

THE BOUNDARIES OF ARMENIA.

When taken in the widest sense, Armenia may be said to embrace the country from lake Urmia or Urumiyeh and the junction of the Kur and Araxes in the east, to the upper course of the Kizil Irmak in the west; and from the upper course of the rivers Choruk and Kur in the north, to the Taurus Mountains in the direction of Bir, Mardin, and Nisibis in the south. It thus included the source and the basin of the Upper Euphrates within its limits—the portion west of that river being called Armenia Minor, and the portion east of it to the Caspian Armenia Major.

The Armenia of Herodotus (v. 52) bordered on the west on Cilicia, from which country it was separated by the Euphrates; towards the north it included the sources of the Euphrates (i. 180); towards the south and east its limits are not distinctly defined; probably Mount Masius separated it from Mesopotamia, and Mount Ararat from the country of the Saspires, who occupied the valley traversed by the Araxes.

The Armenia of Strabo (xi. 14) is limited on the south by Mesopotamia and the Taurus, and on the east by Great Media and Atropatene; on the north by the Iberes and Albani, and by the Parachoathras and Caucasus mountains; on the west by the Tibareni, the Paryadres and Skydises mountains, as far as the Lesser Armenia and the country on the Euphrates which separated Armenia from Cappadocia and Commagéne.

In the Hebrew Scriptures the name Armenia does not occur, but the country so designated is termed Togarmah in Gen. x. 3, 1 Chron. i. 6, and Ezek. xxvii. 14, xxxviii. 6. Ararat, mentioned in Gen. viii. 4, 2 Kings xix. 27, Isa. xxxvii. 38, and Jer. li. 27, and Minni, Jer. li. 27, refer to particular districts or kingdoms in Armenia.

Armenia Minor is now included in the pashaliks of Marash and Sivas, which form part of Anatolia. By Armenia the country anciently called Armenia Major is generally meant, and of this the present article treats.

The country under consideration then extends eastward from the Euphrates to the Araxes and the mountains of Kurdistan which run southward from the neighbourhood of Mount Ararat, inclosing Lake Van and holding Lake Urumiyeh upon their Eastern slope. The western boundary north of the junction of the Kara-Su and the Murad which form the Euphrates is not naturally defined. An offset of the Antitaurus that bounds the basin of the Kara-Su on the west, the Gaur-Dagh, and the Almali-Dagh which connects the Antitaurus with the mountains of Lazistan on the coast of the Black Sea, seem to form the natural boundary in this direction; but part of the country thus included has been already assumed to belong to Asia Minor. On the south Armenia included the northern part of the basin of the Tigris, certainly to the Buhtan, the ancient Kentrites. The extreme northern boundary is the Perengah-Dagh, a projection from the Caucasus which separates the basin of Phasis from the basins of the Kur and the Choruk, and divides in this part the Russian and Turkish empires. That portion of Armenia which lies east of the Araxes, the Arpa, and the highlands that run due north in a line with the Arpa to the Perengah-Dagh, is now included in the Transcaucasian provinces of Russia. A portion of the country is also comprised in the Persian province of Azerbijan. We have to extend our view over a high central table-land resting on mountain terraces, supported by extensions of the Taurus and Antitaurus; over a mountainous country north of this, and finally over the basin of the Upper Tigris.

ARMENIA BORDERING ON THE BLACK SEA.

The Turkish pashalik of Trebizond, which extends along

the Black Sea between the mouths of the Yeshil and Choruk, and is separated in the interior by those rivers from the pashaliks of Sivas, Erz-rum, and Kars, belongs partly to Asia Minor; the eastern part of it from Trebizond to the Russian frontier, at the mouth of the Shefkatil-Su east of Batum, is included in Armenia. Trebizond, an important city from the earliest times, and more especially in the middle ages, when Turkish rule was less corrupt, formed a conterminous mart for the commerce of the east and west.

TREBIZOND, the ancient *Trapezus*, is the capital of the eyalet of Trebizond, the seat of a pasha, and of a Greek archbishop. Its population is variously estimated from 24,000 to 50,000, chiefly Mohammedans, with about 4000 Greeks, and 2000 Armenians. The Christian part of the population lives without the walls. Among the public buildings the most remarkable are, the castle or citadel, partly of ancient, partly of modern construction, situated in the middle of the town on a steep rock, the summit of which is flat as a table (Τράπεζα, hence the name of the town); the bazaar; public bath-houses of marble, and of a beautiful architecture; the ruins of a temple of Apollo, part of which has been converted into a Greek church. The commerce of Trebizond has much increased since the navigation of the Black Sea has been opened to all nations. The town has regular communication by steam-boats with Constantinople, Odessa, and the Danube; and it may now be said to be the first commercial port on the Black Sea; however, the ancient port is almost filled up with sand, and larger vessels are obliged to cast anchor in the road. The commerce of Trebizond with Armenia, Persia, and Georgia is very extensive. The exports from these countries, consisting of silk, wool, tobacco, wax, gall-nuts, oil, opium, drugs, honey, timber, carpets, shawls, saffron, cotton, &c., amount to about a million sterling a year. The imports are composed of European manufactures, such as cotton

fabrics, hardware, glass, fire-arms, &c.; together with iron, corn, wine, tin, salts, spices, and colonial produce. The value of the imports is nearly two millions sterling; the greater part is sent to Persia. Surrounded by a range of high and woody mountains, the town presents a beautiful appearance from the sea. Trebizond is the birthplace of Cardinal Bessarion, who was born here in 1395.

The Genoese who brought the productions of the east to Europe for a long period previous to their expulsion from the Krimea in the middle of the 15th century, constructed a line of fortified stations distant from each other about a day's journey, between Trebizond and Bayazid. These fortifications were strongly built in commanding positions, and served as resting-places for the caravans and quarters for the guards which had to escort them from one station to another. Baibut and Erz-rum were two of the strongholds on this route, and some others will be afterwards mentioned. The transit trade through Trebizond and Bayazid between Europe and Persia has of late years increased very considerably, and is carried on by the old Genoese route, and probably by that traversed in the time of the Roman empire.

The coast east of Trebizond extends for about 130 miles. The view of it from the sea is very picturesque. The mountains rising almost immediately from the shore to between 4000 and 5000 feet, are clothed on their lower slopes with dense forests of chestnut, beech, walnut, alder, poplar, willow, elm, ash, maple, box, and occasionally dwarf-oak, and on the upper parts with fir. Short mountain streams sometimes swollen to torrents furrow the declivities, down which they leap rather than flow into the sea. The forests supply charcoal, fire-wood, and timber for the construction of houses and of the boats used in the coasting trade and in the fisheries; but timber although so abundant is not exported. The country though wooded and mountainous does not pro-

duce corn enough for the population, yet whatever level land there is, indeed every spot capable of cultivation, is tilled, and corn-fields may be seen hanging on the precipitous sides of the mountains at which no plough could arrive. The ground is tilled by a two-pronged fork peculiar to the country. The corn usually grown is maize, bread made of which forms the principal food of the inhabitants: the deficiency in the home produce is made up by importations from the adjacent provinces of Russia. The inhabitants consist chiefly of the Laz (the descendants most probably of the ancient Lazii) and the Oflis, both of whom are described as bold, hardy, and laborious tribes, and as having a high reputation as soldiers. They are particularly expert in the use of a short rifle which every man carries slung upon his back wherever he goes. The Laz who possess the greater part of the coast live in cottages scattered singly over the country. They have no towns, but at different points on the coast there are bazaars with a few coffee-houses and a khan or two, and here markets are held weekly. The Laz of Surmenah and Yomurah, districts near Trebizond, coming frequently into contact with the townspeople, are more civilised than the Laz generally. The Of country touches the coast for about five miles between the Laz districts of Yomurah and Rhizah, but inland it extends more widely, and stretches southward nearly to the Choruk which flows along the southern base of the Lazistan Mountains. The Oflis are said to be wealthy; they have towns and houses of a better description than their neighbours. They are a fierce and independent race, handing down blood-feuds from father to son; their character and the general inaccessibility of the country causes them to be seldom visited by strangers. Rhizah the Laz district east of Of is fertile and has a mild climate, oranges and lemons growing in the open air and requiring no winter shelter as they do at Trebizond. Shirting made from hemp is largely manufactured in this district. At Khopah, an open roadstead

about 50 miles east of Rhizah, goods are sometimes landed for Atvin, a small manufacturing town on the Choruk; but generally goods are landed at Batum, the only safe harbour along the whole coast eastward from Trebizond. There are however many summer anchorages. The Lazistan Mountains are composed chiefly of limestone, and are said to contain lead and copper. There are some passes over them which are practicable only in summer, but even then merchandise is never transported by these routes. In winter the mountains are deeply covered with snow. All communication with the interior is then interrupted; along the coast it is kept up principally by sea, as there are no roads in the country. Other products of this region besides those mentioned above are honey, bees-wax, hazel-nuts, butter, &c.

At the eastern end of the Lazistan Mountains the Choruk enters the sea on the western side of the bay of Batum. In the neighbourhood of Batum abundance of fruit is grown, comprising pomegranates, figs, grapes, citrons, and lemons. To the east of Batum (which though a small place has lately become of some importance for its trade), the coast-country consists of a hilly district backed by the Kolowah-Dagh, an offshoot of the Perengah-Dagh, and to the north of it a wide plain, only a small portion of which cut off by the Shefkatil-Su belongs to Turkey. The Shefkatil-Su and the crest of the Perengah-Dagh formed the boundary between Russia from Turkey until Batum, Kars, and Ardahan, with the adjacent territory, was ceded to the former power. A steep high bank of shingle along the coast protects the plain from the encroachments of the sea. Several small streams flow from the mountains in sluggish currents across the plain, which after heavy rains they convert into a marsh, and empty themselves into the sea by deep breaks in the shingle bank.

From the Perengah-Dagh a long range of mountains runs southward through the pashalik of Kars,

forming the watershed between the Black Sea and the Caspian, separating the basin of the Choruk on the west from the basins of the Kur and the Arpa on the east, and terminating southward in the Suvanli-Dagh, a cross range, which is part of an irregular mass of mountains that run east and west in a broken line, and form the eastern continuation of the system of the Antitaurus, separating the basin of the Choruk on the north from the upper basins of the Kara-Su and the Araxes which are comprised in the central table-land. The Choruk drains all the valleys on the western and northern sides of these two mountain ranges respectively.

The Choruk (written also Jorokh, and Churuk), the ancient Akampsis and probably the Bathys of Pliny (lib. vi. c. 4), rises in the mountain mass that bounds the central table-land on the north. Its course at first is southward through a narrow ravine, from which it emerges on approaching the road from Trebizond to Erzrum; it then makes a semicircular sweep westward round the base of the mountain in which it rises, and traversing the valley of Marsat-Dereh passes the town of Baibut. A few miles below Baibut it receives on the left bank a considerable feeder from the Almali-Dagh, and taking a decided north-eastern course it runs in this direction for above 100 miles through a fertile basin screened by lofty wooded mountains to Atvin. In this interval after the junction of the tributary from the Almali-Dagh which passes the village of Balahor on the Trebizond and Erzrum route, the river receives no feeders of any considerable length on the left bank, the Lazistan mountains descending rapidly and shedding their surface waters in short rapid streams. On the right bank the valleys are longer, and two feeders of considerable magnitude join the Choruk, one about midway between Baibut and Atvin, the other a few miles above the latter town. Below Atvin the Choruk flows toward the north-west in a narrow valley, on emerging from which it receives the

Ajerah from the east, and crossing a small alluvial plain enters the Black Sea a little west of Batum. On account of its falls and rapids the Choruk is not navigable, but rafts of timber are floated down from Atvin to the sea in three days. Sometimes, but rarely, rafts are tracked up the river to Atvin in ten days. The alluvial deposits of the river, which in spring like most of the rivers of Armenia is subject to heavy floods, have formed the tract of land that bounds the bay of Batum on the west; in fact but for this deposit there would have been no harbour at Batum.

The Kolowah and Perengah mountains which screen the valley of the Ajerah on the north, are furrowed on their northern slopes by wild and beautiful gorges, and clothed with forests of the same description as those of Lazistan, but the trees are of far larger dimensions on the plain along their base and on their lower slopes. Maize, millet, and some rice are grown; the winters are not severe but the summer and autumn are wet, so much so that sometimes the crops do not ripen. The mountains are crossed by one or two difficult passes leading into the Ajerah valley. They rise to between 4000 and 5000 feet above the sea. On their upper slopes the long winter of nearly eight months' duration and the wet summer are very unfavourable to agriculture; the arable land is of small extent and at best yields only about six months' consumption; neither are cattle and sheep very numerous, owing to the difficulty of procuring fodder during the long winter. The inhabitants are a very fine race, with a strong mixture of Georgian blood. They speak Georgian, and but few of them understand Turkish. Every man goes armed with a rifle and a double-edged knife, called a khammah. The roads through these mountain forests are mere tracks.

The northern slope of the Kolowah-Dagh is covered with magnificent beech forests, except towards the crest where only spruce-fir and stunted juniper grows. The

pass over it, into the district of Akho in the Ajerah valley, is extremely steep in its upper part. The forests on the southern side of the mountains consist principally of dwarf-oak with Scotch and spruce fir, and a few birches and alders. The Ajerah is formed by numerous small streams that flow down ravines from the Perengah-Dagh and the long range that connects it with the Suvanli-Dagh. Its basin has a temperate climate and a fertile well-cultivated soil, yielding rye and maize, but not much wheat; a small quantity of silk also is produced. At Kulah, the principal village in the valley, grapes ripen and some wine is made. The village has about 60 houses and a bazaar. Goods are conveyed from Batum to Akhalzik by the valley of the Ajerah. From Kulah to the village of Danesvoroláh near the head of the valley the ascent is rocky and steep. The range between Kulah and Akhalzik rises to the height of about 6000 feet; on its upper slopes are extensive pine forests and luxuriant summer pastures, but the winters are long and severe; birches and alders on the higher slopes put out their buds only in the beginning of June. On these pastures and those of the Perengah-Dagh the cattle of the valley of Ajerah are fed during the open season.

On the eastern side of the mountain range the country is open, sloping away towards the north-east with the Kur and the Arpa. The latter however on reaching the frontier near Gumri or Alexandropol turns southward to the Araxes. This part of the pashalik of Kars presents a succession of high plains and well-watered valleys, entirely without wood except in the recesses of the mountains, but well adapted for the growth of corn and for grazing. The inhabitants here, who are mostly of the true Armenian stock, live as their ancestors lived in the time of Xenophon in underground habitations with one opening for the cattle and another for the human inmates. In the plains are several marshes and small lakes. Between

the plain of Pashkov, the most northern part of this district, and the plain of Ardahan, which is watered by the Kur, there is a high bare range, frequented by Turkoman tribes in summer for its pastures. The upper part of the plain of Ardahan is marshy, and serves merely to pasture large herds of cattle; the lower part is well cultivated and productive. Ardahan is an underground village near the source of the Kur; it formerly had about 300 houses and was defended by a castle, which was dismantled by the Russians in 1830. Between this place and Kars the plain abounds with excellent pastures intersected by numerous swamps, in one of which the Delhi Chai, a feeder of the Arpa, takes its rise. There is little cultivated land in this extensive tract and there are very few villages except for a short distance round Kars, where the country is well peopled and highly productive. Kars, the capital of the pashalik, is situated on the Arpa, which is here crossed by two stone bridges.

The climate in this part of Armenia is very severe: in winter the cold is intense and snow lies long. The wheat, barley, and other corn crops are of excellent quality, and afford a large surplus for exportation, but a great portion of the land is unoccupied and untilled. Many of the Armenians emigrated with the Russian army in 1830 to escape the oppression of their Turkish masters, and settled in Russian Armenia, where they enjoy the protection of a regular government; the great majority of the inhabitants of the new city and fortress of Alexandropol, built by the Russians on the site of the old Turkish town of Gumri on the left bank of the Delhi Chai, a few miles above its junction with the Arpa, are Armenians. Eastward from Kars on the left bank of the Arpa are the ruins of Anni, for some time the capital of Armenia.

THE CENTRAL TABLE-LAND OF ARMENIA.

To the south of Kars lies an extensive plain with luxuriant pastures, abundance of cultivated land, and numerous

villages, all except one or two of which are inhabited by Turks. Numerous herds of remarkably large and fine cattle are fed in this district; it is watered by the Arpa, which flows through it in a north-east direction from the Suvanli-Dagh.

The central table-land rises in its highest part near Erzrum to about 7000 feet above the sea; its general slope is towards the south-west, in which direction the Murad and the Kara-Su run, watering two series of extensive plains, separated by the Dujik mountains, the eastern termination of which, called Bin-Göl-Dagh, lies south of Erz-rum. On the northern side of the Bin-Göl-Dagh the Aras has its source, and the portion of the central table-land included in its basin slopes away toward the east, through the plain of Pasin, along the southern base of the Suvanli-Dagh to the junction of the Arpa, whence the inclination is south-east between the gigantic summits of Ali-Ghez on the north and Mount Ararat on the south. These, the highest summits in Western Asia, are respectively 15,000 feet and 17,260 feet above the sea level.

The Suvanli-Dagh is about 5500 feet high; it has a short and rapid descent to the Araxes, but on the north side the slope is more gradual. The range is covered with snow from the end of October; its sides are clothed with dark pine forests, which supply the towns of Kars, Erzrum, and the villages of the plain of Pasin with timber and firewood. The plain of Pasin, extending from the base of the Suvanli-Dagh to the range of hills called Deven Boyini, or "Camel's Neck," which separates it from the plain of Erz-rum, is remarkably fertile in wheat and barley; but wide tracks of the plain lie waste, a large portion of the Armenian inhabitants having emigrated with the retiring Russian army in 1830. The plain is about 40 miles in length, and from 6 to 10 miles in breadth; it is very fertile in corn and pasture, and well watered. It contains about 190 villages, of from 12 to 100 families each. The Aras divides the plain into two

parts, each of which is governed by a Bey. *Hasan-Kal'eh*, on the Kaleh-Su, one of the head-streams of the Aras, is 5830 feet above the sea, and the principal place in the plain. This was one of the old Genoese trading stations. The town is girt by a double wall, and commanded by a castle built on a mountain spur, which rises 1600 feet above the plain. Hasan-Kal'eh has seven mosques and seven fountains. On the opposite side of the river are a vast number of hot springs, some bituminous, and others containing iron and lime; the hottest have the temperature of 105° Fahrenheit. The Deven Boyini runs nearly north and south, connecting the Bin-Göl-Dagh with the uplands on the northern side of the central table of Armenia, and forming the watershed between the Araxes and the Kara-Su. The Kaleh-Su coming from the west, and the Bin-Göl-Su from the south, meet below Kopri-Koi, a village east of Hasan Kal'eh, where they pass through different arches of the same bridge, and uniting their waters form the Araxes, which is here about 100 yards wide, and 3 feet deep in summer.

The plain of Erz-rum is about 40 miles in length and 20 miles in its greatest breadth; it is traversed by the Kara-Su. The soil is of unequal fertility, the higher parts yielding only about eightfold, while the lower ground near the river returns twelve to fifteenfold. But all the corn grown in this plain is of peculiarly fine quality. On the plain itself and the slopes to the north of it are excellent pastures; good horses, fine mules, cattle, and sheep are reared in large numbers. A considerable portion of this plain also is waste, in consequence of the emigration of the Armenian population. Many of the villages are not inhabited, and the nomad Kurds roam over parts of it.

The city of Erz-rum is situated in an extensive and fertile plain watered by the western branch of the Euphrates, which runs at a few miles' distance from the town. The population at the time of the Russian inva-

sion of Turkey in 1828 was estimated at about 130,000, but is now barely a third of that number. Indeed the number of inhabitants fluctuates considerably on account of the great number of strangers who arrive and depart in the caravans. The town is large, and is partly surrounded by an old castellated wall and a ditch. On its southern skirts stands a citadel, encircled by a double wall flanked with towers very close to each other, and with a ditch. The citadel has four gates, and incloses the palace of the pasha and a large part of the Turkish population. But a large portion of Erz-rum is unwalled, and this part contains the principal bazaars and khans. The streets are narrow, dirty, and like all Turkish towns infested by dogs. The houses for the most part are low, and built of wood, mud, or sun-dried bricks; but the bazaars are extensive, and well supplied with provisions. Erz-rum has nearly forty mosques, a Greek church, a large Armenian church, a custom-house, and numerous caravanserais. The country about it produces nothing for export except corn and sheep and cattle. The corn is too heavy an article to pay for conveyance to the sea in a country devoid of roads; the cattle and sheep are sent to Constantinople alive, or as dried meats. The commerce and transit trade of the city is extensive, owing to its position on the great caravan-route from Constantinople and Trebizond to Persia and Mesopotamia. The imports comprise shawls, silk goods, cotton, tobacco, rice, indigo, madder, rhubarb, &c., from the east; and broadcloth, chintzes, cutlery, and British manufactures by way of Trebizond. The native exports, besides those above mentioned, are horses, mules, and gall-nuts. A few furs are exported to Russia.

The climate of the plain of Erz-rum is severe in winter, as might be expected from its elevation. About 6 miles westward from Erz-rum, at the little village of Ilijeh, are two warm springs, which have the temperature of 100° Fahrenheit, and are much used as baths. From

this town there are two roads westward, one leading through Baibut and Gumish-Khaneh to Trebizond; the other across the Almali-Dagh and the Gaur-Dagh to Kara-Hisar and Sivas in Asia Minor. Near the Almali-Dagh this last route is joined from the south by the road leading from Erzingan to Trebizond. Between Ilijeh and the Kara-Su the plain has an undulating surface, and is in some places crossed by low hills: in this part there is no cultivation. The Kara-Su rises about 20 miles north-east from Erz-rum, and flows in a general western course for about 60 miles to its confluence with a stream that runs east from Kara-Kulak; it then turns nearly south-west to its junction with the Murad. At the point where it bends to the south-west it is ordinarily about 100 yards wide. To the north of the river, at this part, is a wild rocky ravine, called Sheïtan-Dereh-Si, or "Devil's Dale," separating the river from the cultivated plain of Kara-Kulak; west of which, but divided from it by a low ridge, lies the extensive and well-cultivated plain of Lori, stretching along the eastern base of the Almali-Dagh. These plains are merely natural subdivisions of the great plain of Erz-rum.

To the south of the plain of Erz-rum is a rugged country, crossed by some limestone ranges, abounding in excellent pasture, on the left bank of the Bin-Göl-Su, which river rises in the Bin-Göl-Dagh, near 41° 30′ E. long., and flows in a north-east direction through a deep wooded glen between the limestone ridges just mentioned and a black rocky range called Kara-Kaya, which runs along the right bank, and forms part of the watershed between it and the Murad, or Eastern Euphrates. This region is furrowed by numerous ravines and glens, but with the exception of the long vale traversed by the Bin-Göl it is devoid of trees. The population is chiefly composed of Kurds, who cultivate some fields which yield a scanty supply of grain; the main dependence is on their flocks and herds. Pasture in summer is abundant and

good, and plenty of hay is obtained for the cattle during winter. To the eastward of the Kara-Kaya ridge is a district called Tuzlah, from a deposit of rock-salt found there, from which the country around is supplied at an extremely moderate rate. The southern slopes of the Kara-Kaya terminate in a plain cut by deep ravines, the sides of which are formed generally of perpendicular rock, and the bottom is rich grazing ground or tilled land. Some of the ravines have rills of water, others are quite dry. Sheep and cattle among the mountains and plains are numerous and of good breed; the mountain pastures are excellent, and abound with an infinite variety of beautiful and sweet-smelling flowers. The heat in summer in the plain is very great, but it is generally moderated by a cool breeze from the mountains.

To the west of the region just noticed lie the Bin-Göl-Tagh ("mountains of a thousand streams"), a long flat range in which the snow lies in patches all the summer. Its general direction is from south-east to north-west. Kara-Kaya seems to be an offshoot from it on the north-eastern side. It also sends off numerous spurs in the opposite direction. At its north-western termination it joins the eastern extremity of the Dujik-Dagh, a long range running south-west and north-east, and containing many lofty summits, capped with perpetual snow. The Char Buhur River, a feeder of the Murad, rises in the angle between the two ranges, and flows east by south; at the junction the two rivers run in nearly a straight line from opposite directions, and the united stream turns off at right angles through a valley which gradually opens into the plain of Mush. In the valley the Murad is a deep river about 70 yards wide; in the plain its bed expands, and the depth is less. In some of the valleys along the lower course of the Char Buhur the soil is rich, and more land is cultivated; the yield of corn is twelvefold. The village of Gumgum, at the foot of the Bin-Göl-Dagh, and not far from the left bank of the Char Buhur,

is only 4836 feet above the sea. At the junction of the two rivers the elevation is about 4138 feet. Except some willows and dwarf trees on the river banks, all this country is bare of trees.

The plain of Mush extends from the Murad to the foot of the long and lofty mountain range forming a continuation of the Taurus and sometimes called the Mush-Dagh, which runs east and west and separates the basin of the Murad from that of the Tigris. The plain is 40 miles long, 12 to 14 miles wide, and watered by numerous streams; it contains much pasture and meadow-land. Some portions of it, especially near the mountains on its southern edge, are stony and arid, but the central part is very fertile. The climate is not so rigorous as in the plain of Erz-rum; as much snow falls perhaps, but the cold is not so intense; loaded carts, however, pass over the ice on the Murad. The summer is warm, often sultry. The elevation of the surface is about 4692 feet. The principal products are corn and tobacco; horses of excellent breed, cows, buffaloes, and sheep are numerous. Grapes are grown on the hill-sides to the southward, and good wine is made; and abundance of melons and common fruits are produced; excellent rhubarb grows wild, and is gathered on the slopes of the Mush-Dagh. The only trees to be seen are planted round the villages. In the Mush-Dagh there are oak-forests, chiefly of the dwarf kind, yielding gall-nuts and manna. The villages of the plain are all inhabited by Armenians; on the skirts of the plain and beyond its limits there are Armenians and house-living or stationary Kurds, dwelling sometimes together, sometimes in separate villages. Setting aside the tent-dwelling or nomad Kurds, the Armenians exceed the Mohammedan population in numbers. The nomad Kurds pay the pasha (as is the case in other parts of Armenia) a tax for *Kishlak*, or winter-quarters. The pasha compels each Armenian village to give kishlak to a certain number of Kurd

families, who not only rob, but are often guilty of the greatest atrocities towards their entertainers. The pasha pays the Armenians, who are obliged to furnish these savages with house-room and corn, hay, and straw for their cattle, as he pleases. To escape from this abhorred service the Armenians wished to emigrate in a body with the Russians in 1830, but they were not allowed. The head of an Armenian family is allowed at any time to emigrate, but he is not allowed to remove his family.

The town of *Mush* is situated in a ravine to the south of the plain; it is a wretched place, containing about 700 Mohammedan and 500 Armenian families. The Armenians are the wealthiest of the population, and on them exclusively falls the payment of the Saliyaneh, or administration-tax. The trade of the town, which is entirely in the hands of the Armenians, is chiefly in the products before mentioned, wool, and gum-tragacanth. Some coarse cottons are manufactured for the local consumption; cloths are brought from Aleppo and Erz-rum. Towards the south-west of the plain of Mush the land is arid, and yields no grain but millet; cattle and sheep are numerous. From this part of the plain a high and difficult pass leads across the ranges of the Mush-Dagh into the valley of the Kolb-Su, a feeder of the Tigris.

The plain of Mush is traversed from south-east to north-west by the Kara-Su, a feeder of the Murad, which rises in the Nimrud-Dagh, the ravines and valleys of which it drains. The Nimrud-Dagh runs nearly north and south, separating the plain of Mush on the east from the region of Lake Van. At its southern extremity is a cross range named Kerku-Dagh, and running east and west with wooded sides and flat summit resembling the truncated cone of an extinct volcano. The Kara-Su, after skirting the base of the Nimrud-Dagh, turns westward along the cross range and the mountains that bound the plain of Mush to the southward. In its course to the north-west it skirts several marshes and flows through

extensive meadows, corn-fields, and melon-grounds. The breadth of the stream near its junction with the Murad is 25 yards in summer, at which time it is fordable; its whole length is about 40 miles. The southern part of the plain of Mush has a gravelly soil; grain does not ripen till the end of August. Some Yezidi Kurds spread their tents among the pastures of the Nimrud-Dagh in summer.

The villages in the plain of Mush as in other parts of the Armenian highlands consists of houses built nearly or altogether underground. On the flat roofs of the houses are built large ricks of hay, to supply fodder to the cattle of the Armenians and for those of the Kurds quartered upon them in winter. The number of children in the villages is very great. In various parts of the plain may be seen threshing-floors to which the grain is conveyed from the fields in order to be trodden out. Buffaloes are used for drawing the arabahs, or carts, which are of a very primitive pattern, entirely of wood; not so much as an iron nail is used in their construction, there being no smiths in this part of Armenia; the wheels generally are firmly fixed to the axle, and revolve with it, but in a few cases the wheels turn on the axle, and strange to say these are the cheaper sort, and used only by the poorer peasants. The plain of Mush is infested in summer and autumn by mosquitoes, especially in its lower parts and in the vicinity of the marshes. The Kharzan Kurds, who dwell on the south side of the Mush-Dagh, in the north of the basin of the Tigris, used a few years ago to cross the mountains by night and rob the Armenians of their cattle and whatever else they could carry away with them.

At the south-eastern extremity of the plain of Mush and a little east of Nurshin (a pretty Kurdish village which covers an extensive site, the houses being dispersed among gardens and fields), a gentle ascent leads up to the eastern extremity of the Kerku range, whence

a narrow valley of gradual slope extends to Bitlis. The valley is screened on either side by lofty mountains; its bottom is traversed by a stream which flows in a ravine between the perpendicular sides of basaltic rock. The rock in the valley is light and soft like pumice, evidently of volcanic origin. In the valley are several large and solid-built khans, now in a ruined state. They were built in such numbers and so near each other in order to afford a ready refuge to caravans and travellers caught in the violent storms of wind accompanied by snow, which sweep down this valley in winter. Into the valley of Bitlis, which runs nearly north and south, one ravine opens from the west, another from the north-west, and a third from the east. In the central space rises abruptly the castle rock of Bitlis; the town is built in the valley and along the ravines, above which bare limestone mountains rise nearly to the height of 2000 feet. The town itself is at an elevation of 5156 feet above the sea. It is the most important commercial and manufacturing place in this part of Armenia.

On the western side of the plain of Erz-rum, at some distance from the Kara-Su, there is an elevated tract with little cultivation and thinly inhabited. The soil is deficient in moisture, and it is only in wet seasons that it yields well. A fine plain succeeds to the westward, well watered, and inhabited by Turks and a few Armenians. The climate in this plain is much milder than in the plain of Erz-rum; wheat returns tenfold. The habitations are only half underground. The winter is not so severe as to prevent cattle being driven out to feed. The Kara-Su, after its junction in this plain with the Mamah-Khatun (which flows westward from the western slopes of the Bin-Göl-Dagh) becomes a considerable river, fordable only in a few places even in the driest season. The dwellers on this plain are kept in a constant state of alarm by the robber Kurds who inhabit the Dujik Mountains to the southward. Cattle must not be left out at night, and

grain must be housed as soon as reaped, otherwise these plundering hordes would sweep both cattle and grain away. The Kurds of the Dujik Mountains, which they have all to themselves, are said to be rich; they pay no contributions of any sort to the Sultan, and they rob his subjects and everybody else they can. They are divided into tribes, and inhabit villages, round which they cultivate a portion of the soil. They have large flocks of sheep and goats. The Dujik Kurds are called Kizil-Bash (Red-heads) by the Mohammedans. Most of them are idolaters of the sect called Chiragh-Sonduran (Lamp-extinguishers). They dress a log of wood in fine clothes, and adore it. When one of their great men dies they bury all his wealth with his body; but the valuables are disinterred on the earliest opportunity by the Mohammedan Kurds.

An offset of the Dujik-Dagh, furrowed by many defiles, intervenes between the plains of Terjan and Erzingan. The town of Erzingan is situated at the western extremity of the plain to which it gives name, and has about 3000 houses, all of which, as well as the villages hereabouts, are built above ground, the climate being mild even in winter. The plain of Erzingan is about 20 miles in length by 8 miles in breadth. Harvest commences in the end of June. The villages on the northern side of this plain lie at the base of the eastern extension of the Antitaurus, which bounds the basin of the Kara-Su on the north; they are surrounded by very extensive gardens, which furnish grapes, melons, and other fruits. In the centre of the plain are some salt marshes; on the pastures are reared a great number of mares, cows, and sheep. The depredations of the Kurds have the effect here also of diminishing the population and of contracting the produce of this otherwise fertile and carefully-cultivated plain.

WESTERN ARMENIA.

The Kara-Su enters the plain of Erzingan by a

series of rapids; it leaves the plain by a very narrow defile between the Dujik-Dagh on the left, and a precipitous spur of the Antitaurus on the right. At Kemakh (a singular place, situated partly on an eminence surrounded by an ancient wall, partly on garden slopes above the river bank, and governed by a Dereh-Bey, or valley-bey, in whose family the office has remained for many generations), the valley is narrowed to the mere chasm in which the river flows, and which is crossed by a wooden bridge. Just above this place the Kara-Su is joined by the Keumer, a stream from the Antitaurus, by which and the Kara-Su wood is floated down to Eghin and Keban-Maden. The reaches of the Kara-Su below Kemakh are deep enough for barges, but they are separated by rapids, rocks, and shoals, which bar navigation. The river continues to run in very narrow valleys, or between vast rents in the mountains, from Kemakh to its junction with the Murad. In the valley of Eghin the mountains rise rapidly to about 4000 feet in height; the lower slopes rising in terraces above the narrow valley are laid out in gardens and planted with trees, while above rise abrupt and naked limestone precipices. The climate here is agreeably cool in summer, from the abundance of trees and water; in winter snow seldom lies in the valley, although the mountains are then impassable. For want of level ground there is little grain cultivated in this valley, the chief products are fruit and garden-stuff. The trees are mostly white mulberry, the fruit of which is eaten fresh, or dried and distilled for brandy, or else boiled into a conserve; grapes are grown and some wine is made; common fruits are abundant. In this deep valley goitrous affections are very common.

The western extremity of the Dujik-Dagh is called Munsur-Dagh, and rises near the fork of the Kara-Su and Murad to about 9000 feet above the sea. Below the junction of the two rivers, the Euphrates runs through a long series of defiles, forming the pass of

Ilijah, between the Gol-Dagh on the right bank, and the mountains of Kharput on the left. These mountains are dreary and barren, without tree or shrub, or vegetation of any kind; but they contain rich ores of lead, iron, and copper. The small town and argentiferous lead-mine of Keban-Maden are situated in a narrow ravine traversed by a feeder of the Murad, at a short distance from the left bank of the river. At the head of the ravine, and about 10 miles from the Euphrates, the country is still mountainous, but more open and productive; and 10 miles farther east the mountains slope down into an extensive plain 12 miles long by about 6 miles broad, fertile, well cultivated, and studded with villages. A low range separates this plain from the adjoining one of Kharput, which is divided by a ridge of hills into two parts, together about fifty miles in length, and from 4 to 6 miles broad. The soil is here of unequal fertility; the southern edge of the plain skirting the mountains is arid and stony, while the centre and lower parts being well watered by numerous streams that run eastward into the Murad, which skirts the plain on the north-east, are very productive. The products comprise all sorts of grain, but especially wheat (which yields twelve to sixteenfold), grapes, of which good wine is made, oleaginous seeds, cotton, lentils, beans, &c. The plain of Kharput is one of the best cultivated and most populous districts in the Turkish empire. It is all under tillage; there are neither pastures nor waste lands in its whole extent. Cattle are sent to the mountains to feed by day, where they obtain but scanty fare—chopped straw at home supplies the deficiency. The heat in summer is intense; the dust and the reflection of the heat and light from the whitish soil are then very annoying. Harvest commences about the middle of July. Besides the products above mentioned are cotton, and the castor-oil plant. Each peasant has a pair of oxen to plough his land, two or three cows, and a few sheep. The Kurds

used often to plunder the dwellers of this plain; of late years it is said, that property is more secure, owing to the vigorous exertions of the Turkish government to subject these lawless hordes. The mountains crossed between Kharput and Malatiyeh, on the Tokma-Su, are covered in parts with dwarf oaks, which yield a considerable quantity of gall-nuts.

The plain of Kharput is screened on the south by a very steep ridge at the southern base of which is the lake of Göljik; and a little to the south-west of this is the source of the Tigris. Between the lake and the eastern continuation of the Taurus Mountains are two small but beautiful and fertile plains, abounding in cattle and inhabited chiefly by stationary Kurds. The mountains are here of the same character as those near Keban-Maden—steep, barren, and of difficult ascent; indeed they are part of the same range that skirts the left bank of the Euphrates, and separates its basin from that of the Tigris. Among these dreary mountains are the copper-mines of Arghana; and about 10 miles to the south is the town of Arghana, containing about 300 Armenian and 300 Mohammedan families, and situated under a lofty peak surmounted by an Armenian convent, and overlooking a vast plain. The slope between the town and the plain is laid out in fields and gardens; it is very fertile, yielding every sort of grain, cotton, fruits, and very superior wine. Wheat here returns sixteenfold. The plain southward to within a short distance of Diyar-Bekr has a very hot climate, and is very deficient in moisture on the surface; but good water is met with by sinking wells to a moderate depth. Some wheat and millet, of which the return is very light, is grown near the encampments of the Kurds, who appear to be the only inhabitants of this part of the plain. The Tigris is not navigable above Diyar-Bekr, but rafts of timber are floated down it from the mountains. It is navigated between Diyar-Bekr and Mosul by keleks, or rafts, composed of boughs and supported on inflated skins.

To the east of the plain of Kharput the mountains press close upon the Murad; the slopes in many places being laid out in gardens and orchards. The width of the river at the eastern side of the plain, near the junction of the Perez-Su, a considerable stream which comes from the southern slopes of the Dujik-Dagh, is above 100 yards, and the stream is very rapid; but higher up the river is compressed in parts to a breadth of about 30 yards, the mountains rising abruptly from its banks. Keleks, carrying stacks of charcoal, and guided by a paddle at each end, are sent down the river to the mining districts above mentioned. The Murad is crossed opposite Palu by a rickety old bridge, which is 2819 feet above the sea. The town of *Palu* is situated at a short distance from the right bank of the river, at the foot of a lofty peak crowned by an old castle at the height of 3292 feet. Palu contains 600 Mussulman and 400 Armenian families. The Armenians are traders and manufacturers; they have 200 looms engaged in the manufacture of cloth from native cotton, a dying establishment, and a tan-yard. They are allowed to possess a few vineyards: the gardens and cultivated land near the town are all in the hands of the Mohammedans.

The mountains that skirt the Murad at Palu sink down on the northern side into an extensive and well-cultivated plain studded with villages, which are surrounded by orchards and vineyards. This plain is bounded to the northward by a long hill-range, which runs along the left bank of the Perez-Su. At the north-eastern extremity of the plain the ground rises rapidly, and the village of Mezirah is 5245 feet above the sea, commanding a view of the plain and the Dujik Mountains. Eastward from Mezirah the mountains are in part strewed with immense boulders, and on their summits are springs and pastures, and on approaching Chevli, a wooded region with frequent steep ascents and descents succeeds. The mountain forests here consist chiefly of the varieties of oak which

yield manna and gall-nuts. A crop of manna is yielded once in three years. The Armenians are here the principal cultivators of the soil. The barley and corn grown are not enough for the consumption; hay and firewood are obtained in abundance from the mountains. The villagers have cows, oxen, buffaloes, sheep, goats, and a few horses. Gum-tragacanth is gathered in the mountains; this and goat's-wool are bought by petty traders for export to Diyar-Bekr. Chevli is situated in a ravine watered by a small feeder of the Murad, from which it is distant about 10 miles to the northward. It is the residence of a Kurdish Bey, who commands 60 small villages in the surrounding district.

From the ravine of Chevli, and the stony plain partly covered with underwood into which it opens to the southward, the country rises rapidly apparently to the culminating point of a secondary range, in which rise the Gunluk-Su, and some other small feeders of the Murad, while the drainage of the northern slopes of the mass most probably flows into the Perez-Su. One of the summits to the south of the village of Ashaghah or Lower Pagengog retains some snow all the summer, and is probably not less than 10,000 feet high above the sea; but the height of the adjacent ranges is not above 6000 feet. Yokarch or Upper Pagengog, about 6 miles north-east of Ashaghah, stands at the height of 5204 feet above the sea. The mountains are clothed with oaks, and are furrowed by numerous glens and winding valleys, with wood and rich meadows: walnut-trees attain an extraordinary size in this district. The two villages just mentioned are inhabited by Kurds, who are continually at war with each other. Between Yokarch and the Takhtah-Kopri-Su, a feeder of the Murad, which skirts the mountain mass on the east, there is evidence of volcanic agency. On the top of one of the ranges are great quantities of obsidian, lying in large blocks; earth of a deep red colour covers the surface of the ground on

both sides of the stream and down to the plain to the southward; and among the low mountains bordering the plain is a peak which appears in form like the crater of an extinct volcano. The Takhtah-Kopri-Su before it reaches the plain runs in a ravine with steep rocky sides, in a rapid current 30 yards wide, between banks covered with trees; after traversing the plain, which is fertile and well cultivated, it joins the Murad about 12 miles to the southward. Soon after it enters the plain the Takhtah-Kopri is joined from the eastward by a feeder, which passes the Kurdish village of Boghlan, and rises in the mountains that fill up the space between the Murad and the Char-Bulur-Su before mentioned, and slopes down to the former river, on the northern side of the plain of Mush. About 10 miles east from Boghlan is the Armenian monastery of Changeri, a famous place of pilgrimage among the Armenians. It is dedicated to St. John the Baptist, of whom a relic is preserved in the church. The church, which is said to date from A.D. 304, is a massive stone structure with a very gloomy interior, owing to the smallness of the windows. In the court around the church are numerous rooms and stables for the accommodation of the monks and pilgrims. The monastery buildings are girt with lofty and solidly-built walls, well calculated to resist a hostile attack. In the Russian invasion of 1830 the Kurds held the monastery for several months, plundered it of its treasures, and burnt or otherwise destroyed all the books and manuscripts. Several Armenian bishops reside in the monastery, which is supported in part by a revenue derived from two villages, but chiefly from the offerings of pilgrims. Between this place and the plain of Mush, the villages are inhabited almost exclusively by Armenian families, except in winter, when the "kishlak" brings about half as many Kurdish families into each.

From the eastern side of the cataracts formed by the Euphrates in its passage through the Taurus Mountains,

the main range continues to run in an easterly direction under the name of the Mush-Dagh, which forms the watershed between the Murad and the Tigris and joins the Nimrud-Dagh, the ancient Niphates, on the western side of Lake Van. The Mush-Dagh is of considerable elevation, as many parts of it retain snow the greater part of the summer. The southern slopes are furrowed by numerous valleys, traversed by rapid streams, feeders of the Tigris. The northern side descends rapidly to the Murad, between the plain of Kharput and the plain of Mush.

To the south of the plain of Mush the mountains consist of three parallel ranges; the most easterly of which, called Koshm-Dagh, is about 6800 feet high: the central one, named Antogh- or Kandush-Dagh, is considerably higher, as it retains snow on its crest for the greater part of the summer. Between the Antogh-Dagh and the western range called Darkush-Dagh, the pass over which is 6490 feet above the sea level, lies the valley of Shin, which is partly cultivated and partly grazed in summer by a Kurdish tribe which winters near the Tigris. The descent of the Darkush-Dagh is very difficult and dangerous; the path sometimes leads round precipitous hollows in the hills, and sometimes in a zigzag down the face of a nearly perpendicular limestone rock, 1200 feet above the Kolb-Su, a considerable river, which, having traversed the valley of Shin in an easterly direction, here sweeps round to the westward, after breaking through the mountains. The passes of the Kharzan Mountains to the westward are still more difficult: no loaded animal except a mule can traverse them. The sides of these mountains are covered with dwarf oaks, and numerous springs issue from them, which are skilfully conducted by long channels to irrigate every spot that admits of cultivation. In the valley of the Kolb-Su, near Nerjki, the seat of a Kurdish chief, there are orchards and magnificent walnut-trees round the villages; there is abundance of pure

water from the limestone glens. The ground, though rough and stony, is cultivated where practicable, and made very productive by means of irrigation. The climate is hot in summer, but tempered by a constant breeze; the winter is short, not much snow falls, and that does not lie long. Corn is reaped in the end of June; common fruits are abundant; melons, carobs, and grapes are grown. The houses on this side of the mountains are not built half underground, but in the ordinary Turkish manner with flat roofs.

A low spur of the Darkush-Dagh, which runs southward, and is covered with dwarf oaks of several varieties, separates the valley of the Kolb-Su from that of its feeder the Yak-Su. In this valley the oriental plane and the castor-oil shrub (*Agnus castus*) grow along the stream, and the cotton plant is cultivated in the fields. The two rivers just mentioned unite several miles south of Nerjki, and are joined still farther south by the Sarum-Su, also flowing from the Darkush-Dagh, and in a wide bed, which in summer is divided into several channels; the united stream falls into the Tigris (still called in the plain, Hiddekel), 15 or 20 miles above the mouth of Bitlis River. The Sarum-Su is famous for its water-melons. The soil in this region is a whitish clay, very arid, but water for irrigation is abundant; the houses are constructed of clay-slate. In summer the weather is sultry, and occasionally strong gusts of wind raise dense clouds of dust.

Westward from the Sarum-Su are the three districts of Hazero, Ilijeh, and Khini, which were formerly ruled by independent Beys, but were subjected some years ago by the Porte. The district of Hazero is in the plain of the Tigris, and contains about 60 villages. The mulberry and Lombardy poplar flourish in the district. Ilijeh and Khini are in the hill and valley country that intervenes between the plain and the Mush-Dagh. The hills are all composed of limestone, and present the usual cliffs, ravines, glens, and clear rills of that formation. The valleys and plains

are very productive in fruit, garden-stuff, and corn; but in some valleys the soil being stony, grain crops are light. A great part of the country, however, is uncultivated and desert. In these two districts there are about 130 villages, inhabited by Kurds and Armenians. The town of *Ilijeh* stands on a feeder of the Tigris at an elevation of 3779 feet above sea level, and commands a fine view of the plain of the Tigris. It contains two mosques, four fountains, and some ill-supplied bazaars. The population amounts to about 1000 families; one-fourth of these are Armenians, who are mostly engaged in the manufacture of coarse cotton cloths. The town takes its name of Ilijeh (which means "warm spring") from a fountain springing out of the limestone rock. This fountain has a temperature of 57° Fahr., which should be the mean temperature of the climate. The townspeople say that its water is cool in summer and warm in winter, a remark which would imply that the temperature of the spring is invariable. The town of *Khini* is situated about 20 miles west from Ilijeh, on the eastern side of a high plain 2924 feet above the sea level, and contains 300 Mohammedan and 150 Armenian families. Here also the Armenians are not farmers, but some of them have gardens and vineyards, the produce of which they send for sale to Diyar-Bekr, distant about 40 miles to the south-west; they are all engaged in manufacturing coarse cotton cloths, and have in all about 120 looms. The raw cotton worked up in these districts is brought from Kharput and Erz-rum, and is the produce of Asia Minor or Persia. At Khini is the Anbar-Su, a feeder of the Tigris; it has its source in a most abundant spring of excellent water which issues from the limestone rock and has the same temperature as the spring at Ilijeh. In the mountains northward from Khini on the road to Palu, are the iron-mines of Sivau-Maden.

The plain of Khini is terminated on the western side by a range of mountains which separates it from a well-

cultivated plain, watered by the Zibeneh-Su, a feeder of the Tigris, which rises to the northward in the main range, at the northern base of which the Murad flows. This river has a clear rapid stream, which in summer is confined in parts to a deep narrow bed 50 feet across, in other parts it runs in a wide sandy bed in several channels. The plain, which is extensive, grows large quantities of wheat, barley, and maize. Between this plain and the Tigris lies the district of Egil, which contains about 50 villages. Aleppo manufactures are sold in this district by Jews, who receive in payment gall-nuts gathered in the mountains to the northward, where also large quantities of charcoal are made for the Arghana mines. The hills to the north of the district are covered with a loose whitish clay, without vegetation, and there is little or no cultivation except in the neighbourhood of the streams. The Arghana mines on the opposite or right bank of the Tigris are at an elevation of 3644 feet above the sea. The steep rough mountains are, a little to the west of the mine, crossed by a military road which runs northward past Kharput and through Asia Minor to Samsun on the south coast of the Black Sea.

The Tigris, which receives the drainage of all the country just noticed to the south of the Mush-Dagh, rises a few miles east of the cataracts of the Euphrates, and a very short distance south of the Göljik Lake, between a ridge of hills that bounds the lake on the south and the main range of the eastern continuation of the Taurus Mountains, near the point 38° 20′ N. lat., 39° 25′ E. long. It runs at first for above 20 miles parallel to the range in an easterly direction, and then southward by a break in the chain through a mountainous country, till it enters the plain of Diyar-Bekr near the town of Arghana. From Diyar-Bekr the river again runs eastward, receiving the rivers that flow from the Mush-Dagh on its left bank, and those from the Karajah-Dagh and Jebel Mardin on the right. On receiving the Bitlis River the Tigris finally

takes a southerly course. The water of the Tigris is bad, and throughout the whole course of the river and of its tributary streams the inhabitants are subject to the disease called Bouton d'Aleppe or Vena Medinensis. In its eastward course below Diyar-Bekr the Tigris traverses a rich plain of pasture land on which a few villages are seen here and there; formerly this plain which is above 40 miles in extent was cultivated in every part and studded with villages, some of which had more than one Christian church. In the plain of the Tigris a vast number of mounds are seen, some bare, some with forts on their summits and villages at their bases.

SOUTHERN ARMENIA.

From the great bend of the river Euphrates above Gergen Kalesi a rocky range runs south-east, with conical summits of trap rocks between the districts of Súverek and Diyar-Bekr, and separates the basin of the Upper Tigris from that of the Euphrates. The watershed is continued eastward by the Jebel Mardin hills, the ancient Masius, a lofty range consisting of white limestone in horizontal strata, on a bold cliff of which the town of Mardin is built. A depression between the trap and limestone is traversed by the caravan road between Mardin and Urfah. Between the ruins of Dara and Nisibin, Mont Masius runs nearly due east, but at a greatly diminished height; near the sources of the Jakhjakhah (the ancient Mygdonius), a feeder of the Khabur, the range again rises up to mountainous dimensions. A little farther to the eastward the conical summits and trap rocks of the Baarem hills succeed, and a low range runs down to the Tigris near Jezireh-ibn-Omar; a little north of which on the left bank of the river rise the bold precipices of Jebel Judi, one of the highest of the Kurdistan mountains, on which Mohammedan writers, supported by a long course of traditionary history, assert that the ark of Noah rested. To the south of the

watershed lies an extensive plain, bounded on the west by a bare limestone ridge that runs in a northerly direction from the neighbourhood of Urfah ; it stretches eastward to the plains of Sinjar, which lie between Jebel Mardin on the north and the mountains of Sinjar, the home of the Yezedees, on the south, and are traversed by the Huali or Sinjar River, a feeder of the Khabur. This plain for ten or twelve miles from the Karajah-Dagh presents long level sweeps bare of trees ; the surface in parts is covered with a dark brown soil of great fertility yielding when cultivated excellent crops of corn ; other parts of it are covered for miles with nothing but large loose stones of porous basalt or basanite. This district is traversed by many rivulets which flow generally in rocky beds ; and Kurdish villages with their accompanying Tels, or mounds, are to be seen in every direction. Near the Jebel Mardin a hard clay containing pieces of white limestone, and yielding only prickly and bitter herbs, rises to the surface. To the south-west of the region of the igneous rocks is an undulating country of horizontal limestone of the chalk formation, intersected by valleys and glens with little or no cultivation. To the westward the chalk hills contain vast quantities of flint, and are again succeeded near Urfah by basanite and other igneous rocks. Large herds of bullocks and horned cattle, and numerous flocks of goats and sheep, and fine horses are fed in this plain. The heat here is very great in summer, and the greater part of the plain is then scorched and bare ; in winter a good deal of snow falls, and the rich soil above alluded to is then converted into mud. Near the Jebel Mardin the rain-water lies in natural hollows, sometimes forming small lakes, but there are scarcely any running streams in the upper part of the plain in summer. The Sinjar mountains are an immense mass of limestone above 50 miles in length, and rising about the centre to their greatest elevation above the plain, which is about 2000 feet. They slope down rapidly

to the Khabur which runs along their southern base; towards the plain of Sinjar and the Huali the slope seems to be more gradual. In various parts of these plains are mounds called Tels, apparently of artificial formation, and on or near them the villages are built: The houses on account of the scarcity of timber are in some parts of the plain of bee-hive shape with spherical roofs; in summer they are used chiefly as barns or to shelter cattle, the inhabitants living almost universally under tents. Kurdish tribes dwell in the Karajah-Dagh and Jebel Mardin; the northern slopes of both the villages are inhabited by Kurds, the plains to the southward by Arabs and Yezedees. In the large towns of Urfah, Mardin, Diyar-Bekr, &c.; a considerable portion of the population are Armenians.

The highest part of the Jebel Mardin rises about 1000 feet above the plain, and about 2300 feet above the sea level. A few small streams run down its northern slopes to the Tigris watering valleys of great beauty and fertility, which are inhabited by Kurds. The spurs of limestone which separate the valleys are rugged and sparingly covered with brushwood. On the northern slopes of the Kara-Dagh the black basalt shows itself again and it appears at intervals along the Tigris, from Mosul to Diyar-Bekr. The latter town stands on a mass of black basalt, and is surrounded by a beautiful country covered with a dark brown soil of great fertility.

The eastern side of the basin of the Upper Tigris belonging to Armenia extended northward from the Buhtan Mountains, a rugged range, supposed to be the mountains of the Carduchians described by Xenophon as approaching close to the left bank of the Tigris; they rise about 3000 feet above the plain. The Kentrites, now the Buhtan, an eastern affluent of the Tigris, formed the boundary between the Carduchians and Armenia. From these ranges numerous valleys open out into the plain, which even on the right bank of the Tigris is broken by many

rugged projections and rocky eminences. The villages of the plains are inhabited by Kurds, Armenian Catholics, Jacobite and Nestorian Christians, and some Yezedees. The Kurds visit their villages generally only at seed-time and harvest; during the rest of the year they are roving shepherds, and at all times desperate robbers. Most of the houses are surmounted as in Xenophon's time with a turret, with the addition that this is now loopholed for the use of musketry. In some parts of the plain water is obtained only from wells of a great depth; but near the hills on the Buhtan side, fountains of extremely cold water abound. The heat is very great in summer, and a hot wind blows frequently from the south. In many of the villages a cool dormitory is attached to each house, consisting of a high platform, erected on poles and covered with twigs and leaves. Near the villages wheat, barley, and tobacco are grown; there are large vineyards also, and in well-watered valleys rice, cotton, melons, and pumpkins are cultivated to a large extent. Cucumbers are grown in prodigious numbers, and are so good and wholesome as to be eaten by the dozen. The rest of the plain, where the rocky tracts do not occur, is covered in summer with high grass. The mountain slopes are covered with woods.

The road from the plain of the Tigris to Lake Van runs up the valley of the Bitlis River, which passes near Sert, supposed by some to be the ancient *Tigranocerta*. This town stands in a wide treeless plain, screened by high mountains to the north-east. A large portion of the plain round it is under cultivation; maize, tobacco, cotton, and wheat are grown, and also melons and cucumbers in countless numbers; in each field there is a small stone house, loopholed, for the defence of the property. The ascent from Sert is not generally steep, but gradual, and through an open country, with the exception of here and there a ravine formed by the mountains encroaching on the river. The narrow rocky

projections that cross the route are in several instances tunnelled; but at what period these small tunnels were formed is unknown. The mountains are offsets of the Arjerosh-Dagh, which bound the basin of Lake Van on the south; they are clothed with woods of oak, and along the rivers are walnut-trees, raspberries, mulberries, and vines. In these mountainous districts the Kurds are not mounted on horseback, as is usual in the plain, but every one of them carries a rifle.

The *Bitlis River*, which is sometimes called the Eastern Tigris, rises in the Demir-Dagh, a southern branch of the Nimrud-Dagh. The stream flows in a deep bed through a defile of gentle descent southward past the city of Bitlis, below which it is spanned by several neat stone bridges. About five miles south of Bitlis the narrow and rocky road, which here runs along the right bank of the river, is carried through a rocky projection by a tunnel 15 feet in width and height, and 20 feet in length. At 16 miles from Bitlis the stream is deep, rapid, and about 12 yards wide. A few miles lower down, striking against a high mountain, which separates the district of Bitlis from that of Varkhan, the river turns first to the west and then to the south-west, flowing through a country with a very warm climate in summer, and yielding maize, cotton, tobacco, and wheat. Nine miles below Sert the river has in summer a breadth of about 50 yards, with a rapid current, and of very slight depth. Near the village of Til, which is situated about 10 miles south-west of Sert, the Bitlis falls into the Tigris, here a very rapid river, at least 150 yards wide in July, and waist-deep at the ford about a mile above Til.

The ravine traversed by the Bitlis River above the city of Bitlis opens towards the north-east, upon a small plain between the Kerku-Dagh and the continuation of the Mush-Dagh, which joins the Arjerosh-Dagh to the south of Lake Van. At the eastern end of the plain, just above the village of Tadvan, situated on the

lake shore, there is a long line of isolated rocks, consisting of lava, and called the "Camels of Tadvan," from a fancied resemblance to a string of those animals. There is a beach of sand and shingle at Tadvan, with rounded pieces of pumice and obsidian. The Arjerosh-Dagh, called farther east the Erdoz-Dagh, runs in a direction of east by south, and at a distance of four to six miles from the lake; its slopes are covered mostly by the dwarf oak. The interval consists of several small plains and valleys separated by spurs of the Arjerosh-Dagh, which occasionally project to the shore, and are generally clothed with timber. Cultivation is confined to the neighbourhood of the villages, some of which are surrounded by plantations of walnut-trees. Barley, oats, apples, plums, pears, apricots, &c., are grown. Fruits do not ripen till August. The plough used in the district of Lake Van is entirely of wood, drawn by bullocks (sometimes eight of them are yoked together) and mounted on two wheels, one larger than the other. From the plain of Vastan at the south-eastern angle of the lake, the Arjerosh Mountains, here called Erdoz, rise precipitously to about 4000 feet above the plain, and retain some snow all through the summer. The village of Vastan at the western side of the plain stands on a sloping ridge, the crest of which is crowned by a castle. A river named Anjel-Chai, which flows from the eastward, enters the lake to the north of the plain, and by its depositions has formed a long point bounding the bay of Vastan on the east. This bay is shallow, and will in all probability be at some time completely filled up by the river. The Anjel in summer is only about 20 yards wide, but deep. It rises in the angle between the Erdoz-Dagh and Sar-al-Bagh-Dagh, which will be noticed presently. Near its source is the castle of Mahmudiyeh, the strongest fortress in this region, which is held by a Kurdish Khan, who is all but sovereign of the district to the south and south-east of the lake, and maintains an excellent police, so that life and property are much more secure than in other

parts of Armenia. Beyond the valley of the Anjel-Chai are bare limestone hills, sloping down to the lake and containing some pretty dells; from the head of one of these an aqueduct conveys a stream of water to the city of Van. This canal, the formation of which is attributed to Semiramis, skirts the village of Artemid, irrigating its gardens and turning some mills on its way to Van. The Erdoz-Dagh at their south-eastern extremity joins the Sar-al-Bagh Mountains, which form the crest of the highland that separates lakes Van and Urumiyeh. On the eastern slopes of this range are the sources of the Great Zab, which flows south by east along the eastern base of the mountains on its way to join the Tigris. It receives from the southern slopes of the Erdoz Mountains the Hekari on the left bank. In the mountainous region between the two rivers is the district of Tyari, inhabited by Nestorian Christians, who call themselves Kaldani. Between them and the Erdoz range are the Hekkariyeh Kurds, whose chief town is Julamerk. West of Hekkariyeh is the district of Amadiyeh, and between this and Sert the region of Buhtan. The mountainous country that lies to the south of the Arjerosh and Erdoz ranges is imperfectly known; it is the country of the ancient Karduchi and the native seat of their descendants the Kurds. It was anciently called Gordyene and Cordyene, and now forms Turkish Kurdistan, a name which is often used to denote a large part of the country described here under the head of Armenia.

On the eastern shore of Lake Van the crest of the mountains is at a distance of about 30 miles from the lake. These mountains are covered with snow, and some of their summits, as Herawel-Dagh in a spur separating the valley of Elbagh from the basin of the Kotur, a feeder of the Araxes, rise to about 9000 feet above the sea. On the left bank of the Kotur is another very lofty summit called Haleb-Dagh, or Mount Erlan. Between the sources of the Kotur and the Great Zab these eastern

mountains divide into two ranges—the western one a black, steep, snow-capped range, forming the eastern edge of the basin of Lake Van; and the eastern bounding the basin of Lake Urumiyeh on the west. Between the two ranges lies the valley of Elbagh, at the head of which and at an elevation of 7500 feet above the sea, the Great Zab has its rise. The valley opens toward the south and is said to be about 20 miles long and 5 miles wide. The soil of the valley is rich and fertile, and previous to the emigration of the Armenian inhabitants at the close of the war between Russia and Turkey in 1830, this was a wealthy district. The crest of the eastern range forms the boundary line between Persia and Asiatic Turkey. From the source of the Kotur the mountains run northward to the neighbourhood of Bayazid where they meet the Ali-Tagh, which contains the sources of the Murad, and the Gernawuk, a feeder of the Araxes.

Between the eastern watershed and the shore of the lake, the surface presents high plains and valleys, with some hill ranges. A remarkable object in the plain, a few miles to the eastward of the city of Van, is the rugged mass of the Warak-Dagh, a naked black range about 15 miles in length. In the neighbourhood of Van the plain is studded with villages, which are surrounded by gardens and orchards; and from the high isolated rock on which the citadel stands, to the large and beautiful lake which is of a clear blue colour like the sea, with its ring-fence of mountains and surrounding plains and valleys, may be seen the gardens of Van, situated between the city and the Warak-Dagh, and which cover a level area of about 4 by 7 miles. The area is occupied by vineyards, orchards, melon-grounds, and some fields. Nearly the whole population of the city resides in the gardens in summer. The gardens are all surrounded by mud-walls, which intercept the view; and streams bordered by willows run through the main avenues, which are lined with houses.

The city of *Van*, according to Armenian traditions, is very ancient; its foundation is ascribed to Semiramis, who it is alleged called it Shemiramgerd. This tradition is said to be confirmed by one of the numerous arrow-headed inscriptions cut in the rocks in which the citadel of *Van* is situated, and on the hard compact limestone rock of the mountains to the east of the gardens. In the citadel rock are caves supposed to have been formerly used as sepulchres. Some coarse calicoes are manufactured at Van from cotton imported from Persia; and wheat is exported to Persia. Other manufactured articles are brought from Damascus, Aleppo, and Erz-rum, or Persia. A few yellow berries (*Rhamnus infectorius*) are exported, and orpiment, the produce of the Hekkariyeh Mountains. The country about Van yields all kinds of corn, fruits, and wine in abundance. Linseed is grown for making lamp-oil. Bullocks are used for carrying burdens by the Kurds, who have almost as high a regard for their horses as for their own persons. The population of Van is estimated at 5000 Mohammedan and 2000 Armenian families. In the country parts of the pashalik of Van the Armenians outnumber the Mussulmans. A large number of the former migrate to Constantinople, where they are employed as labourers, porters, and artisans. Yet the population of the pashalik is thin, and extensive tracts of fine land are untilled and even unoccupied; so that were there not some defect in the administration the people need not resort to emigration. Insecurity of life and property on account of the Kurds, and the maintenance of the "kishlak," are causes sufficient to check the extension of agriculture and make the people emigrate.

Lake Van or *Wan* is of irregular shape. The southern and principal part of it is a tolerably compact oval; but from the centre of the northern side of this a long narrow gulf projects for about 40 miles in a north-east direction. The extreme length of the oval between Tadvan and Van

is about 67 miles, and the breadth about 25 miles. The north-eastern projection is 5 miles wide at its narrowest part, but the breadth increases south and north of this to about 12 miles. The whole area is not much short of 2000 square miles. The surface is 5467 feet above the sea. The waters of the lake are clear, blue, and salt, like the sea; the degree of saltness is greater in the southern part of the lake than in the projecting gulf, which receives several fresh-water streams, the most considerable being the Bendi-Mahi-Su, which falls into the head of the gulf. There are some small islands in the lake, the principal of which is Akhtamar, opposite the mouth of the Anjel-Chai; this island contains a large Armenian monastery and church, and is the residence of at least one bishop. The old Armenian name of the lake is also said to be Akhtamar. The lake is supposed to contain abundance of fish, but there is not a single small boat on the whole lake, nor has any attempt been made to fish in deep water. Small fish, resembling herring, are caught in immense quantities in spring, when they come up the stream to spawn; they are then taken with baskets. There are no passage boats on the lake; and places only a few hours apart by water are virtually several days' journey distant from each other. Five or six crazy barges convey cotton or cotton cloths from Van to Tadvan, on their way to Bitlis, where they are dyed red; the return freight is grain or timber. The lake is generally shallow in-shore, and in parts (especially on the northern shore of the gulf), between the mouth of the Arjish-Chai and the Bendi-Mahi-Su, the deposits from the rivers are fast filling it up. In ten years the plain of Arjish is said to have advanced a mile on the lake. The winter of the basin of Lake Van is severe, and a great deal of snow falls; but the frost is less intense than in the plain of Erz-rum. In severe winters the shallow parts of the lake are frozen, and the people of Arjish can cross to the opposite shore of the gulf on the ice. Gulls, cormorants, and other water-fowls

abound on the lake. About 20 miles north-west from Van is the lake of Erchek, a fine sheet of brackish water of an oval shape, about 10 miles in length and 5 miles in breadth. It is surrounded by mountains on all sides, except the east, in which direction the shore is flat. The lake has no visible outlet; but in the Kurdish district of Mukus or Mukush, on the southern side of the Arjerosh Mountains, a river, one of the tributaries of the Tigris, rises, which is said to have a subterranean connection with Lake Van.

To the north of the plain of Van there is an undulating country with extensive vineyards, and a whitish clay soil, which produces abundantly in wet seasons. This district is separated from the lake by a low range of hills, which increase in height to the northward; and a parallel range runs at some distance inland. Between this wide district and Merek, which is famous for its monasteries and its pilgrimages, there is little land under tillage. To the north of Merek is the district drained by the Bendi-Mahi-Su, which is frequented only by Kurds, some of whom are settled in villages along the lake. The Bendi-Mahi is broad, deep, and of a dark blue colour at its mouth, where it flows between reedy banks. It rises near the source of the Murad, in the mountains south of Bayazid, of which it drains the southern valleys; its whole course is about 35 miles. Between Bargir-Kaleh, the seat of a Kurd Bey a few miles up the river, and Bayazid, the country is a mountain tract without a single village or settlement of any kind, and frequented only by nomad Kurds. A spring near the mouth of the river maintains a heat of 55° Fahrenheit, which is probably the mean heat of the climate.

Westward from Arnis, a Kurd settlement at the north-eastern extremity of Lake Van, there is a rough country backed by mountains, and terminating near the lake in flats, which in summer are infested by innumerable swarms of small flies. In this district, which is now

altogether waste—but bears evidence, in the remains of field-inclosures, villages, and khans, of having been once occupied by a settled population—there are numerous evidences of volcanic action; its rocks are a black, hard, honey-combed lava, and a stream a little east of the village of Haidar-Beg rolls over black lava boulders. This rough country slopes down into a well-watered plain, terminating in marshes and swamps near the lake at the town and castle of Arjish, which retains the elements of the name Arsissa, by which Lake Van was known to the ancients. There are about twenty large villages in this plain. The soil is deep and alluvial. The pastures are extensive and fine, and the number of cattle, sheep, and mares very great. The castle of Arjish is in a ruinous condition; the houses of the town, which are inhabited by Mussulman Kurds and a very few Armenians, are built in the usual fashion, half underground. The Armenian church of Arjish is small but very ancient. The Haideranlis Kurds pasture the mountains to the northward, and winter in the villages of the plain of Arjish. The character given of them is, "they rob when they can, and by craft rather than by violence." At a village on the western bank of the Arjish-Chai is a stone building said to be the tomb of a Persian king.

High ground bounded to the northward by mountains, and on the south by a low range that skirts the lake, extends to the Armenian village of Ashraf, which is situated in a ravine about 10 miles west from Arjish. Below the village the ravine opens into a plain which reaches to the lake, and contains many vineyards. Beyond this the abrupt mountains recede, and the lake frontage widens, so as to afford a fine view of Sapan-Dagh from base to summit. The shore is bordered here by meadows containing dark pools of water, with a strong sulphurous smell. In the district south of the Sapan-Dagh, between the village of Nurshin and the town of Ad-el-Jivaz, the sandy soil yields fine clean corn crops;

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the system of sowing corn in drills has been practised here from time immemorial. Water-melons used to be grown abundantly, but as they were always eaten by the passing Kurds the peasants no longer cultivate them. The chief property of the peasantry is in their corn, cattle and mares, meadows and orchards. Soda is collected on the shore and sold to the Kurds to make soap. Cattle to be safe must all be housed at night. The yield of wheat in this district is stated to be twenty-fivefold, of rye fiftyfold, and of barley fortyfold. The bread is most excellent. Ad-el-Jivaz stands in a well-watered valley; it is open to Lake Van, but inclosed on the other sides by walls, which run from the lake shore to the extremities of the works of an old ruined castle built on a limestone rock above the town. In this limestone valley, where the water is pure and so abundant that the gardens are irrigated, common fruits are very plentiful; water-melons and grapes thrive well. Some coarse cotton cloths are woven in about twenty looms in the town; both Turks and Armenians here are weavers.

The limestone district rises west of Ad-el-Jivaz into high cliffs, skirting steep rocky paths far above the level of the lake. To the westward the limestone dips into a plain, and is succeeded by clay-slate, followed by coarse conglomerate, the component parts of which become gradually smaller to the westward, and terminate on the western side of Lake Van in the fine grained light sandstone of the neighbourhood of Akhlat. The old town of Akhlat, now in ruins, is supposed to have been taken by Timur in the 14th century. There is a cemetery of great extent near it, with headstones of one piece 12 feet high; this, and several other smaller burying-grounds, give evidence of the extent of the population of the town. On all the tombs and other buildings are Turkish and Arabic inscriptions. The town stood in a ravine, in the centre of which there is a rock covered with ruins, probably of a castle. On the opposite side of the ravine is a

large tomb also in ruins, which is said to contain the remains of a king. The natives know nothing of the history of the place; they say that it was the residence of an ancient sovereign. The modern town of Akhlat stands on the lake shore at a little distance from the Nimrud-Dagh, and 25 miles east from Bitlis. It is a dull place, surrounded by a double wall even towards the lake, the inner circuit being flanked by towers, and a citadel on high ground commands the town. The houses are built of square stones cemented with clay.

The Sapan-Dagh, which forms a most conspicuous object in the region of Lake Van, is about 10 miles distant from the middle part of the northern shore. It is an extinct volcano with crater and cone. The cone, which is on the north-east side of the crater, has a flat top surrounded by numerous peaks, and is composed of loose fragments of calcined rock, gray or pale red in colour, remarkably light, and easily displaced, the fractures displaying small bright crystals. The ascent is painful, and attended with disagreeable sensations, such as pains in the head and sickness at stomach, not owing to the height (the highest peak does not exceed 10,000 feet above the Black Sea), but caused it is supposed by the escape of some gas from the crater. The view from the summit is very extensive. The two peaks of Ararat are distinctly visible, the Bingöl range, the conical peak of Kosch-Dagh in the plain of Arishkerd, Lake Erchek, and Lake Nazuk, at the western base of the Nimrud-Dagh. A good deal of snow lies in the hollows of the mountains, but the cone and peaks are bare in summer; and no glacier exists upon it. The ascent is practicable only between the middle of August and the second week of September, on account of the snow which covers the summit all the rest of the year. On a lower cone on the south side of the mountain there is a small lake called Aghri-Göl. The whole mountain from base to summit is composed of basalt, scoria, and other volcanic débris;

lava-streams have burst from various parts of it besides the summit. Neither tree nor shrub is to be seen on the Sapan-Dagh; there are some pastures, but they seem unfrequented, or perhaps avoided. There is no record of this mountain ever having been in an active state.

EASTERN ARMENIA.

From Lake Van and the Sapan-Dagh north-eastward an undulating country with a light sandy soil, but thinly inhabited and exhibiting evidence of the emigration of the Armenians in deserted villages, rises gradually to a high plain near the foot of the Ala-Dagh, in the ravines of which are small trees, willows, alders, birch, wild apple and pear-trees, and currant-bushes. The Ala-Dagh is about the same height as the Sapan-Dagh; on the northern faces of the highest peaks the snow always lies. From the summit of the mountain a deep valley called Zelandereh descends on the eastern side. At the vale-head rises a small stream which, augmented by innumerable rills that trickle down the rocks, forms a brook increasing in volume at every step: this is the source of the Murad or Eastern Euphrates, which flows north-east in a narrow vale with a grassy bottom to Diyadin, where it turns north-west for about 40 miles, and then sweeps round to the south-west, through the plateau east of the plain of Mush. Diyadin is a large village, with a mixed population of Kurds and Armenians, situated on the caravan route between Erz-rum and Persia. It was formerly a trading station of the Genoese, by whom the partly dilapidated castle on the edge of the ravine of the Murad was built.

The mountainous region of which the Ala-Dagh is the highest point terminates near Bayazid, about 25 miles east from Diyadin, in a wide plain, which separates it from the foot of Aghri-Dagh, by which name Mount Ararat is known in the neighbourhood. This region forms part of the watershed between the Murad and the Araxes; in

summer the ground is parched and dusty, and high winds blow very frequently. The city of *Bayazid*, the seat of a hereditary pasha, is situate in 39° 31′ 40″ N. lat., in a recess of a craggy mountain facing Mount Ararat, which is about 10 miles distant on the north side of the plain. The pasha's palace, a handsome stone building on a rocky peak, commands the town, but is itself commanded by higher peaks, from which the Russian guns were pointed in 1829, when after a few shots the place surrendered. In a ravine opposite the palace is the former residence of the pasha, which is half excavated out of the rock, and now serves for an arsenal; and on the summit above this are the remains of a more ancient castle, probably one of the Genoese trading stations. Bayazid is in a declining state, and has little or no commercial activity, owing to the Russian quarantine, which prevents active intercourse with Erivan, and to the emigration of the Armenian population with the Russian army in 1830. The Mussulman population of the town are rude and uncouth in the extreme, as also are the Kurds, with whom they are in constant contact. Before 1830 the number of inhabitants was estimated at 15,000; since then the population is said to have dwindled down to about 5000.

The Murad in its western course below Diyadin runs in the intersection of two inclined planes, one sloping northward from the Ala-Dagh, the other southward from the edge of the basin of the Araxes, between Ararat and the Koseh-Dagh. Through this region the Murad runs generally in a deep narrow valley with luxuriant grass; the width in summer is not more than 30 paces, and depth inconsiderable; but in spring the river swells so as not to be fordable at any point. The plain of Arishkerd extends westward from Diyadin to the Sheryan-Dagh, a low range which seems connected on the north with the Koseh-Dagh. Its length is at least 40 miles; its breadth varies from 6 to 16 miles from

north to south. The soil is rich and well watered. There are not more than thirty villages in the plain, only three of which have Armenian inhabitants. The rest of the population is composed chiefly of Kurds; but there are some Terekemeh (Turkomans), a people like the gipsies, of unsettled habits and doubtful honesty. A large part of this fine plain is comparatively deserted, and much of it lies untilled for want of hands. Before the Russian invasion of 1829 there were a great number of Armenians living in villages scattered over it, but nearly the whole of them emigrated with the retiring army to Georgia. In the plain of Arishkerd at about 15 miles west from Diyadin, and within a hundred paces of the right bank of the Murad, in 39° 38′ 23″ N. lat., stands the monastery of Uch-Kilisa, a massive stone building, consisting of a church, out-buildings, and court-yard, all surrounded by a very loftly wall. The plan resembles that of the monastery of Changeri before noticed, but the structure is larger and handsomer; it has however suffered much from time, and some years ago from earthquake. This monastery is said to have been built about A.D. 306, by the same architect as those of Changeri and Ech-Miadzin. It is now a dependency on the patriarchal church of Ech-Miadzin, which is the residence of the Katholikos, or primate of the Armenian Church, and is situated a little west of Erivan, in the Russian part of Armenia. The plain of Arishkerd is traversed by the caravan route from Trebizond and Erz-rum to Persia. It yields, where cultivated, good crops of corn, but the principal wealth of the inhabitants seems to consist in their flocks and herds, buffaloes, cows, oxen, mares, and sheep. The principal place in the plain is Toprak-Kaleh, situated under the mountains on the north-western edge of the plain. It is the residence of a Bey, and has about 400 houses, half of which are inhabited by Armenians. Kara-Kilisa in the central, and Molla-Suleïman in the western part of the plain, are inhabited exclusively by Armenians.

About 35 miles west from Diyadin the Murad turns to the south-west through a break in the low hills that thus far line its left bank, receiving at this point the Sheryan-Su, which flows along the base of the Sheryan-Dagh, on the western side of the plain. From the Sheryan-Dagh a wide plain is said to extend southward for about 36 miles to Malazgerd, on the Murad; thence westward to the Kara-Kaya Mountains and the junction of the Kalesi-Su with the Murad. The country is said to be generally level, so that from Diyadin to Kinis-Kalesi, on the Kalesi-Su, there is a nearly continuous plain about 100 miles across. Of this part of the country little is known.

A lofty range, of which the Koseh-Dagh is the culminating point, separates the plain of Arishkerd from the undulating plain of Pasin. The Koseh-Dagh is a bare cone, the summit of which is about 9000 feet above the level of the sea. It is entirely free from snow in summer; and in the neighbourhood of the range of which it forms part it does not seem of great elevation: and this is to be borne in mind with regard to all the mountains on the table-land of Armenia, that they are seen from a level varying in elevation between 5000 and 7000 feet above the sea; and that though they are really of great elevation they have little of the imposing grandeur of the Pyrenees from the banks of the Adour, or of the Alps from the valleys of Piedmont. The range of the Koseh-Dagh is crossed by two passes, one of which, through the village of Dahar, is open throughout the year and is that frequented most commonly by caravans and travellers; the other, winding under the peak, is impassable for caravans and in winter is blocked up with snow. This latter pass is the shorter, but it is now almost entirely abandoned, owing to the robberies of the Kurds, who used to lie concealed in the ravines that open into it on the watch for an opportunity to plunder. The Koseh-Dagh range is furrowed by numerous well-watered valleys, with fine pastures and some underwood. Its continuation

westward seems to meet the low range that runs along the right bank of Bingöl-Su from the Kara-Kaya Mountains, the whole forming part of the edge of the basin of the Araxes, and connecting the Kosch-Dagh with the Bingöl-Dagh.

The soil of Armenia exhibits in many places clear evidence of volcanic agency, and seems at a remote period to have been covered with water, of which the Caspian and lakes Van and Urumiyeh are the remnants. First, the oolitic series to which the principal mountains belong was upheaved, and subsequently a deposit of schistose and arenaceous sandstone took place. Then came great volcanic eruptions: here thrown into vast conical mountains containing craters—there filling up valleys—and in other instances forming circular basins, some of which exist as lakes, while others have been since filled up with tertiary deposits. The Sevan Lake, the Lychnitis of Ptolemæus, situated to the north-east of Erivan, in Russian Armenia, is surrounded by trap and porphyry formations. It is 40 miles long, and about 20 miles wide, and from it flows the Zenghi, a feeder of the Araxes. The abundant deposits of rock-salt in the central table-land are a further proof that a salt sea once covered this region.

THE CONDITION OF THE ARMENIANS.

As Christians the Armenians adopt the Apostolic, the Nicene, and the Athanasian creeds, but reject the decrees of the Council of Chalcedon, and follow the Monophysite heresy in admitting but one nature (namely the divine) in the person of Christ. They assert also that the Holy Ghost proceeds from the Father only. They have the seven sacraments of the Catholic Church, namely, Baptism, Confirmation, Matrimony, Consecration of Priests, Confession of Sins, Eucharist, and Extreme Unction. They admit the doctrine of the transubstantiation of the bread and wine used in the sacrament, which they administer under both forms to laymen as well as to ecclesiastics,

dipping the bread into the wine. The Armenian clergy are divided into monastics and seculars. The former (under which class are comprised patriarchs, archbishops, bishops, doctors, monks, and hermits) live in celibacy; the secular clergy are permitted and advised to marry. The Armenian Church does not acknowledge the supremacy of the Pope; there are, however, many Armenian congregations that do, and are therefore called United Armenians or Armenian Catholics. It is governed by patriarchs, who reside at Ech-miadzin, Sis, and Akhtamar, an island in the south of Lake Van. The number of their bishops amounts to between 50 and 60.

The Armenians have an era of their own, which commences with the year 551 of the Christian era. Their year is a moveable solar year.

The population, which is scanty compared to the extent of the country, consists chiefly of Armenians, Kurds, and Turks, with a small number of Turkomans in the north, and some Yezedees and Arabs in the basin of the Tigris. The Armenians constitute the bulk of the agricultural and trading part of the population; they are a down-trodden, long-oppressed race, with great aptitude for business nevertheless, and a wonderful fidelity to their religion, to which alone they are indebted for their existence as a separate people throughout long centuries of subjection. They are generally prohibited from carrying arms; they are not allowed to remove with their families to parts of the country that are thinly peopled, or where spare lands abound. This prohibition is enforced only against the Christian Rayahs, and is intended to prevent migration and the diminution of contributions to local taxation; for the head of a family is called upon to pay his portion at the place where his family resides, though he himself may have been obliged to seek employment elsewhere.

All the male Rayah population above 14 years of age pay *Kharaj*, or poll-tax; they are divided into classes, each of which pays a different amount. Another tax,

which is not paid exclusively by Armenians, is the *Saliyaneh*, or administration-tax, to provide for the salaries of the public servants. This is an arbitary tax varying in amount according to the disposition or necessities of the pasha, who produces no accounts to regulate or justify its amount. The mode of its imposition is this :—When the amount is fixed by the pasha the heads of each religious sect meet at the capital of the pashalik, and apportion it among their districts; then the heads of the sects in the districts apportion the sum allotted to the district among the villages; and in the villages the sum to be raised in each is again subdivided among the inhabitants by the heads of the village. The Moslem population, in some parts of the country at least, are exempted from the saliyaneh altogether. Some of the villages on the leading route are exempted from it on condition of furnishing post-horses or of entertaining travellers. These taxes, in addition to a tenth of the produce of the soil paid to the pasha by all cultivators, weigh heavily (sometimes as many as three saliyanehs are paid in the year); but the greatest grievance under which the Armenians groan is the abhorred "kishlak," by which they are forced during the long winter to receive the Kurds, their families, and cattle, into their houses, and to supply them with food, fodder, &c., receiving in return whatever the pasha, not their guest, may be pleased to pay. Yet perhaps all this would be endurable were there a steady and regular government, sometimes, however, the authority of the pashas is set at nought by the Kurdish chiefs, who impose a less amount of taxation on the cultivators, but leave them exposed to the plundering propensities of their insolent and lawless followers.

The Kurds have spread themselves over the greater part of Armenia, and form perhaps the majority of the population. They are divided into Ils, or clans, which are often at feud with each other. Some of them have villages in which they reside constantly; others reside in

their villages only during the winter, and others again have no settled habitations but live under tents during the open season, and are quartered on the Armenian villages during the winter. For this they agree with the pasha or the seraskier of whatever province they are in to pay a certain sum as "kishlak-parah-si," or tax for winter quarters, and the pasha allots them arbitrarily among the Armenian villages, sometimes in the ratio of one Kurdish family to two Armenian, often in the ratio of two to three.

In spring the nomad Kurds first graze the low grounds, and rise towards the higher mountains as the season advances and the lower pastures are consumed. They return gradually from the high grounds as the cold forces them to descend; about the end of October they go into winter quarters where they remain between five and six months in the close and filthy houses of the Armenians. Although there is positive evidence of pastoral wealth among the Kurds their women and children are never well clothed, the latter being either naked or scantily covered with a few rags. In youth nevertheless both sexes are robust and healthy, and have beautiful teeth; but their exposed and laborious life makes them, the females especially, grow prematurely old. Among the house-dwelling Kurds only women of high rank conceal their faces, but among the tent-dwellers all exhibit their features without reserve, and have considerable intercourse with the men of the encampment. It is very common for the young men to run away with the young women of a neighbouring encampment, which produces violent quarrels and often gives rise to blood feuds.

The Kurds have a strong propensity to rob; they will even thieve in the hope that by some expedient a part may be retained. No shame or punishment is attached to acts of this kind. In their plundering expeditions, which they generally undertake after the ingathering in hopes of greater booty, they endeavour to surprise the inhabitants and carry off everything they can seize; if

resistance is made or rescue attempted, many lives are lost. Their women not unfrequently load the rifles of their husbands, and often take a more active part in the affray.

Some of the tribes rear fine horses of the Arab breed, and the Kurds generally are excellent horsemen. The dress of a Kurdish chief is as follows :—"Short yellow boots; blue cloth trowsers of prodigious dimensions; three jackets of different colours, and one of them with sleeves two yards in length; a wide silk sash round the waist, and an enormous turban of silk of every colour; a white Arab cloak; a dagger and a pair of long pistols in his belt, and a sword worn with the edge to the rear complete his costume." This gay dress is imitated more or less by every one according to his means. The poorer Kurds wear the coarse woollen manufactures of their villages made into a short jacket and trowsers.

BAGHDAD.

The Pashalic of Baghdad, formerly one of the most important and wealthy provinces of the Turkish empire, and the first in rank, was some years ago divided into several distinct governments. It once extended from Diarbekr to the Persian Gulf, but is now reduced to the districts surrounding the city with the Arab tribes who encamp in the neighbourhood; Kerkouk, Suleimaniyah, and Busrah being formed into separate governments. The pashalic is here treated of under its former extent, as little is known either of the extent or boundaries of the new divisions. The province extends in the form of a triangle, between 30° and 37° N. lat., 38° 40′ and 47° 30′ E. long. The vertex of the triangle is at the head of the Persian Gulf; its eastern side borders on Persia and Kurdistan; on the south and west it is bounded by the Arabian Desert. The base of the triangle is an irregular line facing the north-west, where it touches the pashalics of Orfa, Diarbekr, and Mosul. The greatest length from the head of the Persian Gulf to the north-west boundary is about 630 miles; the length of the base is about 400 miles; the area of the province therefore exceeds 100,000 square miles. The population is supposed not to exceed 1,200,000.

The Pashalic of Baghdad comprehends the principal part of the ancient Mesopotamia and Assyria, the whole of Babylonia and Chaldæa, and a considerable portion of Susiana. The part of Mesopotamia which is comprehended in the modern Pashalic of Baghdad is now called Aljezirah, or the Island; Babylonia and Chaldæa form Irak Arabi; Assyria partly corresponds to Kurdistan; and the present Khuzistan was the ancient Susiana.

This extensive territory is traversed by the Euphrates and Tigris which ultimately unite and enter the Persian Gulf in a single stream. The Euphrates enters the pashalic at Deir to the south of the Abd-ul-Azeez hills, and 18 miles above the mouth of the Khabur. It is stated to be navigable for small steamers throughout its whole course in the province, and indeed for 850 miles from its mouth up to the town of Balis, whence it runs in a general south-east course, but with many windings, to its mouth in the Persian Gulf.

The Tigris flows to the eastward of the Euphrates, and from its entrance into the province it runs nearly south to the city of Baghdad, whence its course is nearly parallel to the Euphrates, as far as the Shatt-el-Hie Canal, which joins the two rivers and crosses the meridian of 46° E. Hence the Tigris sweeps round to the north-east, east, and south-east, making a large bend, and then runs to the south of south-east to its junction with the Euphrates at Kurna.

The two rivers within the limits of this territory are most distant from each other between Deir on the Euphrates and the point where the Great Zab enters the Tigris, where the distance is about 180 miles, and the nearest approach is at Baghdad, where the distance of the Tigris from the Euphrates does not exceed 30 miles. Here the two rivers are united by the Saklawiyeh Canal. The stream formed by the junction of these two great rivers at Kurna takes the name of Shatt-el-Arab, and flows south-east to the Persian Gulf, which it enters by the great mouth near 30° N. lat. The length of the Shatt-el-Arab is about 150 miles, its breadth varies from 1200 feet at Mohammerah, a trading town at the mouth of the Karun, to 700 yards at Basrah and 600 yards at Kurna. Its depth varies from 30 to 20 feet. The Euphrates and Tigris, both having their rise in the high table-lands of Armenia, are subject to periodical floods on the melting of the snow in spring, and again, though in a

less degree, from the rains which fall in the highlands in October.

DISTRICTS WATERED BY THE EUPHRATES.

From the Khabur to its junction with the Tigris the Euphrates receives only a few very inconsiderable streams; on one side it has the deserts, and on the other the contracted region of Aljezirah and Irak Arabi. The *Khabur* is the ancient Chaboras, the Kebar of the Old Testament. It rises to the north of the Abd-ul-Azeez hills in 40° E. long. at Ras-al-Ain, and flows eastward to its junction with the Jeruger (also called the Jakhjakhah), the ancient Mygdonius; near the junction is the cone and crater of Koukab, 300 feet high above the plain. The Jeruger is formed by two head-streams which spring from the Jebel Mardin; the western one passes Nisibin. After the junction of the Jeruger with the Khabur the united stream runs south by west in the direction of the former to the Euphrates at the ruins of the ancient city of Carchemish, now called Karkesea and Abou Psera. The valley of the Khabur, between the Abd-ul-Azeez on the west and the Sinjar Mountains on the east, abounds in rich pastures, on which the Shammar Arabs encamp during the summer. The stream is belted with poplars, tamarisks, and brushwood. The river is crossed by some ledges which cause rapids. The meadows on its banks are adorned in summer with a succession of flowers of different colours and of the most brilliant hues. In the plain are numerous mounds, the sites of Assyrian towns. To this valley the children of Israel, after the destruction of Samaria, were brought captive by the Assyrian king, and here Ezekiel announced his visions to his brother exiles. Judging from the number of mounds the valley must have contained a very large population in ancient times. Now there is not a permanent human habitation from Carchemish to Ras-al-Ain. Turtle and beavers are found in the Khabur, and in the jungle on its banks are lions, wild boars, jerboas,

francolins, and other game. Between the extinct volcano of Koukab and the Sinjar Mountains are extensive beds of gypsum, the nitrous salt that exudes from which destroys vegetation. The lake of *Khatuniyah* is also in this direction; its waters are brackish but wholesome; they abound in fish and are the resort of great numbers of water-fowl. A swampy jungle called Hol, to the westward of the lake, is infested by lions, leopards, and other carnivorous beasts. The lake is 6 miles round; it contains a small island, and on a peninsula in it are the remains of a deserted Arab town. The Abd-ul-Azeez hills, which screen the Khabur on the west at a distance of from 4 to 6 miles, are low, scantily wooded with dwarf oak, and broken into innumerable glens and valleys, characteristic of its limestone formation. Wild goats, boars, and leopards are met with in this range.

South of the Sinjar extend the great plains of Mesopotamia and Chaldæa, presenting for a great part of the year the appearance of a desert, except near the banks of the rivers or in a few spots where irrigation is practised. The surface is mostly flat or undulating. Along the right bank of the Tigris and along the eastern part of the plain there is a long limestone ridge called Jebel Mak-Kul, which terminates to the north-west in the summit of El-Katr, to the west of the ruins of Kalah-Sherkat, supposed by some to represent Ur of the Chaldees. The Mak-Kul range consists of limestone and gypsum; it is a continuation of the Jebel Hamrin, another range composed of tertiary sandstone, gypsum, and conglomerate, which runs north-west from the Diyalah near 34° N. lat., 45° E. long., to about 35° N. lat., 43° 30′ E. long., where it is broken through by the Tigris. The Adhem also breaks through the central part of the Hamrin hills. To the west of the Mak-Kul range is a lower ridge called Kebritiyah from its containing sulphur springs. The gypsum crops out in several parts of the plain between these ranges, and there are also several naphtha springs and bitumen beds. West

of the Kebritiyah is the basin of the Tharthar which flows south by east through the centre of the northern plain and loses itself in the salt-lake of El-Milh, which is crossed by the parallel of 34° 10′ N. The valley of the Tharthar is bounded by rocky terraces of gypsum resting in parts on red-sandstone. Its waters are brackish. Reeds and a few tamarisks grow along its banks. The Tharthar passes the ruins of Al-Hadr, an ancient city situated about 60 miles south by west from Mosul. The red-sandstone formation west of Al-Hadr contains rock-salt. There is another salt-lake called Sabakhah near the left bank of the Tharthar, and nearly on the same latitude as the mouth of the Lesser Zab. In the drier parts of the plains grass is rare, lichens and wormwood with a few flowering plants supply its place. In the prairie pastures oat-grass is the most abundant of the grasses; it grows interspersed with ranunculus, chrysanthemums, and many kindred flowers. Wild leeks also abound in many places. In the winter and spring the pastures on the plains are grazed by the flocks and herds of different Arab tribes, the principal of which are the Shammar and Anezeh. In ancient times these plains supported an immense population. Vast mounds, marking the sites of ancient cities, towns, and villages, are scattered in countless numbers over the surface nearly all the way from the Khabur to the mouth of the Euphrates; the embankments of canals now neglected and dry cross the plains in several directions, especially in the central and lower part of the plains. These canals supplied the towns of the interior with water, were used also for purposes of navigation, and distributed fertilising rills by innumerable smaller channels among the date-groves, gardens, and corn-fields of ancient Babylonia and Chaldæa, once among the most productive regions of the earth. The whole of the region is now little better than a desert; except along the rivers there are no fixed human habitations whatever. Even along the Tigris, between Baghdad and Mosul, on a river navi-

gable for 600 miles, the only permanent settlement is Tekrit, once a large city and the birth-place of the great Saladin, now a poor place consisting of a few houses built among ruined mosques, baths, mansions, and tombs, and inhabited by a few Arabs who act as raftsmen on the Tigris. The date-palm which once flourished all through Babylonia and Assyria is said not to be found now farther north than Tekrit, and only in a few places along the river banks or in the islands. This deterioration of the country has been going on ever since the destruction of Babylon, and the neglect of the canals and embankments of the river; but under the Greeks, Romans, Persians, and the Arabian Kalifs, the great sources of the fertility of the country were somewhat cared for, and property had some protection; the routes by river and by land were tolerably safe, and trade was encouraged. But it is since the country came under the blighting sway of the Turks that its desolation has become complete. The unjust and injurious system of the Porte, or her governors, who impose exorbitant taxes on every mode of transit and make monopolies of all articles of produce and merchandise effectually check all native efforts to engage in trade or to navigate the rivers. Two of the finest rivers in Asia that once spread fertility through districts unequalled for richness of soil and variety of produce, are from sheer neglect of the embankments in their lower courses said to be breaking from their natural beds and forming vast marshes, so that the Euphrates and the Tigris which could be navigable by small steamers, the former for 850 miles the latter for 600 miles, are in danger of becoming unnavigable even for small vessels. As for the land routes they are all exposed to the unchecked depredations of Arab hordes, owing to the apathy or perhaps interested negligence of the Turkish authorities. To avoid the Arabs the high road from Mosul to Baghdad is carried far to eastward along the base of the Kurdish hills; requiring an interval of six weeks to traverse it, while the direct

road southward over the plain could be traversed in as many days. Even this roundabout way is seldom safe.

The utmost rise of the Euphrates during the floods of spring is about 14 feet, that of the Tigris is greater, perhaps 20 feet. The tide extends farther up the Euphrates than up the Tigris; it reaches in the former river to the distance of 60 miles from Kurnah while in the Tigris it scarcely extends to more than 35 miles.

THE DISTRICTS WATERED BY THE TIGRIS AND ITS TRIBUTARIES.

The Tigris receives no tributaries worth mention from Mesopotamia. From Kurnah to the ruins of Ctesiphon it receives no rivers on its eastern bank, but between that point and Mosul a considerable number enter it, all of which rise in Kurdistan. The principal of these are the Zab Ala (Upper or Great Zab), the Zab Asfal (Lower or Lesser Zab), and the Diyalah. The Great Zab, after traversing a great portion of Turkish Kurdistan, empties itself with rapidity into the Tigris about 45 miles below Mosul. Its breadth where it enters the Tigris does not exceed 60 feet, although at the low-water horse-ford on the road to Mosul it is at least 200 feet wide. The Little Zab is a narrow but deep river which rises in Kurdistan also, and pursues a south-south-west course to the Tigris, which it enters in lat. 35° 10′. It however discharges a large body of water into the Tigris, which immediately after forms a rapid; indeed there are several rapids in the Tigris between Mosul and Baghdad, but they form no great impediments to navigation, as vessels drawing from 3 to 4 feet of water could pass them with ease. The Adhem joins the Tigris in 34° N. lat., its breadth is 20 to 70 yards, according to the season, but for four or five months of the year its waters are dammed up for the purpose of irrigation a long way above its mouth. The ancient city of Opis stood in the fork between the rivers, where still are ruins and the remains

of a splendid canal (called Naharwan), with branches from it. The Adhem comes from the neighbourhood of Kerkhah, where it is called Kisseh-Su, and increased by several streams from the east, it forces a pass through the Hamrin, midway between the Diyalah and the Tigris. The Diyalah is formed by the union of several small streams in the mountains behind Suleimaniyah; and after it has received the Holuan and Arwand from the Kermanshah districts it becomes a considerable river, which discharges itself into the Tigris about 5 miles above the Tak Kesra at Ctesiphon. Its breadth at its mouth is about 60 yards.

The Shatt-el-Arab is navigable in mid-stream for vessels of 500 tons burden; but towards the banks there is such a labyrinth of channels, shallows, and sandbanks as renders its navigation sometimes difficult and perplexing. This noble river receives from Persia the Kerkhah, and communicates by the canal of Hafar with the Karun.

The *Kerkhah* (the ancient *Choaspes*) rises on the eastern side of the Zagros, or main range of the mountains of Kurdistan, and is formed by three streams which unite to the south of Bisutun and Kirmanshah, on the northern border of Laristan. The general course of the trunk-stream is south by west till it breaks through the Zagros chain, the drainage of the western side of which is carried into it by the Kirrind, near Shari-Rudbar. Thence its course is south-south-east as far as the ruins of Sus, where it sweeps round to the south-west across the plain of Khuzistan, passing through extensive marshes that surround Hawiza (a commercial town of 12,000 inhabitants), and enters the Shatt-el-Arab below Kurnah, after a course of 500 miles.

The *Karun* (the ancient *Eulæus*) rises on the western declivity of the Koh-i-zerd, on the opposite side of which the Zend-a-rud (the river of Ispahan) has its source. It runs west by north through a mountainous country and past the ruined city of Shushan to about 20 miles north from Shuster, where it turns nearly south, and breaks

through the Zagros range. A little above Shuster the Karun divides into branches, insulating that city, and uniting again only to the south of Bandikir, two miles north of which the western arm is joined by the *Dizful* River (the ancient *Koprates*), which comes from the north. After its junction with the Dizful River, the Karun is said to have a greater body of water than either the Tigris or Euphrates. From this point the river runs in a very tortuous course and nearly in a south-west direction to Sabla, whence in ancient times it ran direct to the sea, without communicating, as it does now by the Hafar Canal, with the Shatt-el-Arab. From Sabla another cut called the Dorak Canal runs eastward to join the Jerahi, while from the main stream through the Hafar Canal, and at a distance of eight miles east from the town of Mohammerah, a large navigable branch called Bah-a-Mishir runs 31 miles south by east, and parallel with the Shatt-el-Arab, into the Persian Gulf. The ancient bed of the Karun is still traceable below Sabla; it is 200 yards broad, and has still a small channel in the centre which is filled during flow tide.

The *Jerahi* or *Kerdistan* River, which we notice here, although it is not in the Turkish empire, because its navigation is closely connected with that of the Shatt-el-Arab, rises in the Bakhtiyari Mountains, in the south of Persian Khuzistan, and flows south-south-west to the town of Beïhabun, which it reaches after breaking through a pass in the mountains. Through the fine well-wooded plain of Beïhabun the river runs north-west with a deep rapid course past Kaliphabad, where it becomes navigable for boats; and after flowing for several miles nearly due west, it bends sharply to the southward a little above Dorak, and continues in this direction to its mouth in the Persian Gulf. In the district of Dorak a large portion of the waters of the Jerahi are carried off by six canals for the purpose of irrigating the populous country between it and the Karun; part of the water thus diverted is carried

into Dorak, where it unites with the canal which comes from the Karun near Sabla. The navigation of the Jerahi is thus connected with that of the Karun and the Shatt-el-Arab, and Dorak trades by water with Mohammerah and Basrah. A few miles below Dorak another portion of the waters of the Jerahi is lost in some marshes, and the remainder under the name of Lusbah runs south into the Persian Gulf, and is still navigable for boats. There are extensive rice-grounds and fine date-plantations along the Shatt-el-Arab, Karun, and Jerahi.

The country between the Euphrates and Tigris, from lat. 34° N. to Kurnah, is intersected by the dry beds of many natural and artificial canals. The only canal now useful is the natural one of Shatt-el-Hie: it is about 100 yards in width where it opens into the Tigris, and is navigable during eight months in the year, but becomes nearly a dry bed in summer. Its stream divides at about 35 miles from the Tigris, and afterwards re-uniting forms an island about 30 miles long by 15 miles broad. Besides such waterless natural and artificial beds as we have noticed, others may be traced which extend in a direction parallel to the Tigris and Euphrates, and might have been originally intended not only to serve the purposes of irrigation and to drain the marshes, but to avoid the delay and trouble which vessels have now to encounter in following the windings of the rivers. The most important of these canals is the Naharwan, which commenced near Samarah, on the east side of the Tigris, and received the Diyalah in its course. Ruins of towns on both sides of this noble canal, and aqueducts leading towards the Hamrin Mountains, and to the ruined towns of the Tigris, remain to this day. The extensive ruins at the mouth of the Adhem are those of the ancient city of Opis.

DISTRICT EAST OF THE TIGRIS.

The portion of the pashalic now to be considered is that

to the east of the Tigris, that to the west of the Euphrates, and that between the two rivers, having been already described. Of these three portions that to the east of the Tigris is the most fertile. Part of this district now forming the pashalics of Kerkuk and Sulcimaniyah consists of portions of Kurdistan and Khuzistan. Kurdistan is altogether a hilly country. The stern and lofty summits of the centre are exchanged, on proceeding towards the borders, for wooded and vine-clad hills, which inclose many beautiful plains, fertile valleys, and romantic dells. The Kurds who live within the limits of the pashalic are principally cultivators; and were till lately governed by chiefs of their own choice. These independent chieftains have been lately subdued by the Turks. Their plains and valleys produce rice, wheat, barley, sesame, tobacco, gall-nuts, and all sorts of fruits, particularly grapes. The inhabitants of the other parts of the pashalic draw largely upon the fertile plains east of the Tigris for their agricultural produce. Sulcimaniyah, Kerkuk, and Erbil are the principal towns.

The City of BAGHDAD stands on the banks of the Tigris, about 200 miles above the junction of that river with the Euphrates, and 300 miles above the point where the united stream enters the Persian Gulf. The city stands in a forest of date-trees, which conceal the meanness of its buildings from the approaching stranger, but allow glimpses of its splendid minarets and domes.

Baghdad is divided into two parts by the Tigris. It was originally built on the right bank of that noble stream; but the court having been removed in the latter part of the 11th century to the opposite side, the more respectable part of the population gradually followed, and the original site became a sort of suburb, inhabited chiefly by the poor. The whole of the town is surrounded by a high and thick wall of brick and mud, which is flanked at regular distances with round embattled towers. Some of these were constructed in the time of the caliphs, and in

workmanship and size greatly exceed those of more modern date, and are now mounted with cannon. The citadel is on the left bank of the Tigris, at the point within the wall where it abuts on the river, to the north of the city. It commands the communication across the river, but it is not of great extent, nor are its fortifications much above the general level of the ramparts of the city. It serves as an arsenal and barrack. The whole city wall on both sides of the river is about 5 miles in circumference; but a large portion of the area which it incloses is laid out in gardens and plantations of date-trees. Under the wall there is a dry ditch of considerable depth, which may when occasion requires be filled from the river.

The interior of Baghdad miserably disappoints the expectations which the exterior view may have raised. It is built on no regular plan, and there are few towns even in Asia the streets of which are so narrow and tortuous. They are not paved; they are full of inequalities, occasioned by deposits of rubbish, and rendered disgusting by dead carcasses and all manner of filth, which would endanger the public health were not the most noxious part speedily removed by the numbers of unowned and half-savage dogs.

In general the houses do not present any windows to the street. Instead of a regular front with windows, there are high walls pierced by low and mean-looking doors; but in some of the better streets the Turkish kiosk, or large projecting window, or else the Persian lattice, occasionally occur. The houses are mostly built of bricks; new bricks are rarely employed unless in public buildings, as old ones can be easily obtained by turning up the ground in almost any direction around the city. The walls are to appearance of very great solidity and thickness; but they are only faced with brick, the space between being filled up with earth and rubbish. The houses have two floors besides the habitable cellars. The ground floor is occupied with baths, store-rooms, and

servants' offices. The first floor contains the state and family rooms, which are invariably very lofty and splendidly decorated, presenting a striking contrast to the filthy and beggarly aspect of the streets. In many instances the rooms have vaulted ceilings, which are tastefully adorned with chequered work and mouldings. They are amply provided with windows of coloured glass, and the walls are profusely ornamented with gilding, painting, and inlaid mirrors. The buildings of a house in Baghdad commonly occupy two or three sides of the interior of a square court. In this court, which is paved with square stones, some date-trees are usually planted, and there is frequently a fountain in the centre. Access to the first floor is afforded by external stairs of stone, which conduct to the verandah, into which all the doors of that floor open. This verandah, which is supported by the walls of the ground floor, is generally wide and paved with squared stones, and its boarded covering and carved screen are supported by pillars of wood, the capitals of which are often very curious.

The only public buildings of note are the mosques, the khans, or caravanserais, and the bazaars. There are said to be about 100 mosques in the town; but not more than 30 are distinguished, in a general view of the city, by domes and minarets. The domes are remarkable not less for their unusual height than for being covered with glazed tiles of various colours, chiefly green, blue, black, and white. The minarets, which are more massive in their structure than those of Constantinople, and are without the conical termination which the latter exhibit, are also glazed, but in better taste than the domes, the colour being of a light brown, with a different colour to mark the lines formed by the junction of the bricks. These lofty minarets and beautifully-shaped domes reflect the rays of the sun with very brilliant effect. Some of the more ancient towers are surmounted by the nests of storks.

The bazaars of Baghdad are numerous and extensive, but are in appearance much inferior to those of some other oriental cities of less note. Many of the streets of shops which compose them are long, tolerably wide and straight, and vaulted in the usual manner with brick-work; many others are narrow, and covered only with a roof of straw, dried leaves, or branches of trees, supported on flat beams laid across. The bazaars are in ordinary times well supplied with oriental produce and manufactures. The baths as in all other oriental towns are numerous. The khans, or caravanserais, which amount to about 30, are inferior to those of some other Turkish towns, and do not admit of comparison with those of Persia.

The communication between the two parts of the city divided by the Tigris is by means of a bridge of 30 pontoons. Another mode of communication is by means of large round baskets, coated with bitumen, which are the wherries of the Tigris, Euphrates, and Diyalah, which last flows at some distance to the east of the city, and joins the Tigris about 10 miles below it. The Tigris is about 250 yards wide in full stream at Baghdad, and the rapidity of its course varies with the season. Its waters are very turbid, although perfectly clear at Mosul, and until the Great Zab enters it.

The existing ancient remains in Baghdad are very few; but these few far exceed any of the modern structures in solidity and elegance. There are three or four mosques the oldest of which was built in A.D. 785, and has now only remaining a minaret which is said to be the highest in the city, near the centre of which it stands. It commands a most extensive view over the town and adjacent country, and on a clear day the Tak Kesra, or arch of Chosroës, at Ctesiphon can be distinctly perceived from it. Of the mosques of more modern date that of Abdul Kadder is the largest and finest. Underneath its lofty and beautiful dome are deposited the bones of a famous

Sonni doctor of the above name, who lived at the latter end of the 12th century, and who is considered the patron saint of Baghdad. This mosque is well supplied with water by a canal from the river, and the court is furnished with a vast number of cells for the accommodation of 300 devotees, who are supported from the funds of the establishment. Baghdad was at one time the literary and scientific capital of Mohammedan Asia. The college, founded in the year 1233 by the caliph Moostanser Billah, acquired great fame in the East: it still exists as a building near the bridge of boats, but it has been transformed into a khan, and the old kitchen is now the custom-house.

The city wall has six gate-entrances, three in each division of the city. The largest and finest is the Talism gate, which, according to an oriental custom, was walled up when sultan Murad IV. had passed through it on his return to Constantinople, after he had recovered Baghdad from the Persians. It has never since been opened. Outside the walls on the eastern side of the town there is a large burial-ground, in the midst of which is a tomb erected to the memory of the wife of the caliph Harun al Raschid, the famous Zobeide of the "Thousand and One Nights." It is an octangular structure, capped by a cone which much resembles a pine-apple in shape. The ruins and foundations of old buildings, and even the lines of streets, may be traced to a great distance beyond the present walls of the town. On the western side these remains extend nearly to Akkerkuf, or the Mound of Nimrod, as it is called by the natives. This structure must originally have stood at no great distance from the gates of the ancient city. It is now reduced to a shapeless mass of brickwork, about 126 feet in height, 100 feet in diameter, and 300 feet in circumference at the lower part. The natives think that it was originally intended as a beacon for signal-fires; or it may have been designed for a grand observatory.

The climate of Baghdad is salubrious, but intensely hot in summer. The heat is much greater than the geographical position of the place would lead a person to expect; and this is easily accounted for by its situation in a vast naked plain on the borders of a desert, as well as by the prevalence, during part of the summer, of the hot wind, the Samiel. This wind commonly begins about noon, or somewhat earlier, and continues until three or four o'clock in the afternoon. It is felt like a gentle breeze which has just passed over the mouth of a lime-kiln. Its heat and that of the summer months in general is so oppressive and relaxing, and of such long continuance —without the intervention of storms, or showers, or cloudy days—that the spot would at that season scarcely be habitable but for two compensating circumstances: one of these is the bracing coolness of the nights, to enjoy which the people sleep upon the flat roofs of their houses from the middle of May to the latter part of September; the other is provided by the people themselves, who have under their houses spacious vaulted cellars, in which persons whose circumstances or occupations allow it live almost entirely by day during the summer season. These cellars are rather gloomy abodes; the light is very sparingly admitted; but the apartments are well ventilated by excellent wind-chimneys, which appear on the housetops like massive towers strengthening and crowning the parapet. On these ventilators the numerous storks which frequent the city in the summer build their vast cylindrical nests.

Snow never falls at Baghdad, and hail very seldom. In the month of January the freezing of towels hung to dry upon the river, and the formation of a thin surface of ice upon water standing in jugs in the open are regarded as indications of a surprising degree of cold. The people nevertheless suffer more from the cold of winter than would be imagined: this arises from their rooms being exclusively constructed for summer use; and from the

temperature of the same rooms being very little heightened by the braziers, which in the absence of stoves and fire-places are employed.

Rain rarely falls at Baghdad from May to the end of September. After September the rains are copious for a time, but the winter is on the whole dry; the number of days on which any rain falls in the whole year, does not exceed twenty-five. Nevertheless the autumnal rains at Baghdad and other parts of the country are so heavy that the Tigris, which sinks greatly during the summer months, again fills its channel and becomes a powerful and majestic stream. This occurs again in the spring, when the snow dissolves on the mountains of Armenia and Kurdistan. The lowlands on both sides of this river and the Euphrates are then inundated; and when the fall of snow has been very great in the preceding winter, the country between and beyond the two rivers, in the lower part of their course, assumes the appearance of a vast lake, in which the elevated grounds look like islands, and the towns and villages are also insulated. During the calamitous inundation of 1831 the waters found an entrance to the city, and fully one-half of the town was ruined. Thousands of lives were also destroyed; and as the most destructive plague which had visited Baghdad for sixty years was at the same time raging, the combined operation of these calamities reduced the population from about 75,000 to 20,000 or 25,000. The population in 1844 had risen to nearly 65,000, but since that date the number has gradually decreased.

The plague is observed to visit Baghdad at intervals of ten years; but the amount of destruction which it generally effects is exceedingly light compared with that to which we have just adverted. There is only one other malady to which the Baghdadees are much exposed:—this is a cutaneous disorder called the Aleppo Button. It is first a tumour, and then a wide, deep, and distressing ulcer, for the cure of which no means have hitherto been

found, until after six or eight months it heals of itself. It leaves an ugly and indelible scar, and as children are generally attacked in the face, the countenance suffers so greatly in consequence that the people of Baghdad may without injustice be considered the ugliest people in Turkey. Adults are generally attacked in the limbs. It is said that those who have once suffered from this disorder are exempt from future attacks.

The population of Baghdad is exceedingly mixed; and the very distinctive dresses of each people clearly indicate the component parts of the population. The Osmanli Turks scarcely ever wear at Baghdad the embroidered jacket, capacious trowsers, and close cap so common in the neighbourhood of Constantinople; the civil dress prevails: long loose gowns of cotton, muslin, or silk, with wide shapeless cloaks of broadcloth or shalloon; while the red cap with its blue tassel, instead of fitting close to the head hangs loosely backwards, and is wound about with white muslin flowered with gold. Christians dress much in the same manner. They are not, as in many other towns, restricted from light colours in their dress, or from wearing yellow slippers; but they are expected to abstain altogether from green colours and from white turbans. The Jews are generally distinguished by having their red caps fitting close to the head, with only a yellow handkerchief tied around them. The Arabs form a very important part of the resident population, besides a large number from the desert as occasional sojourners. They are distinguished chiefly by their head-dress, which consists of a coarse shawl of silk and cotton, with wide stripes of red and yellow; this is folded triangularly and laid upon the head, around which a thick roller of brown worsted is then passed. The ends of the shawl cover the neck and shoulders; and as it is also furnished with a fringe of knotted strings which hang down the back, it helps to give a wild appearance to the Arab countenance. They are also distinguished by their wide sleeveless cloaks,

which are wholly black, or white with a wide stripe of blue, brown, or red. This cloak (abba) is made of hair and wool, and when confined at the waist by a leathern belt, it generally with a coarse shirt underneath forms the entire dress of an Arab. His turban also distinguishes the Kurd; it is frequently of silk, with stripes of blue, red, and white; and its fringe of knotted strings, though not so long as in the Arab turban, which is also differently worn, excellently sets off the bold, grave, and strongly-marked countenance of the pure Kurd. Then there are in considerable numbers the active and animated subjects of the Persian Shah, in their curly, black, and conical caps, high-heeled slippers, and gowns of green or blue, which are distinguished from those of other eastern people by their tightness in the body and the sleeves. Such are the figures which on horseback or on foot appear in the streets of Baghdad, or sit smoking by the way-side. It would be incorrect and impossible to comprehend these various masses of people under one general character. They can only be spoken of in the mass with a reference to their knowledge; and it may be said that they are prejudiced, self-conceited, and bigoted, because they are profoundly ignorant. The Armenians are decidedly the best-informed people in the city. Many of them have been in India, and several have spent much of their lives in that country. They have thus become acquainted with English manners, institutions, and modes of government. It is perhaps an approximation to state that four-fifths of the population of Baghdad are Turks and Arabs in nearly equal proportions. In the remaining fifth the Jews are apparently the most numerous. To them the vicinity is consecrated by the recollections of their captivity, and by the tombs of the prophets Ezekiel and Ezra. The latter is situated near the junction of the Tigris and the Euphrates, the former to the south-west of Hillah: both are places of pilgrimage to Jews and Moslems alike.

The only women in Baghdad who exhibit any part of

the face in the streets are the Arab females. Their dress consists in general of an exceedingly wide chemise of red or blue cotton, to which in winter is added a cloak similar to that worn by the men. They seldom wear shoes, and never stockings; but about the head they wear a mass of black cotton or silk stuff, which is rather gracefully disposed. It is brought round so as to cover the neck and throat and the lower part of the face. This head-dress is often profusely ornamented with beads, shells, and current and ancient coins. They are also fond of wearing anklets and bracelets of silver, which are generally more than an inch in breadth, and suggest the idea of shackles rather than ornaments. But their most whimsical decoration is worn on one side of the nose, which is bored for the purpose: it consists of a gold or gilt button, about the size of a halfpenny, in the centre of which a small torquoise stone or a blue bead is inserted. Their faces, arms, and other parts of their bodies are also decorated with stars, flowers, and other figures, stained on the skin with a blue colour, and the effect of which is exceedingly unpleasing to a European eye. The Turkish and other women so muffle themselves up when they go out, as to appear the most shapeless masses imaginable. They are enveloped in large sheets of checked blue linen, which cover them from head to foot. These sheets are sometimes of crimson silk, striped with white. Their legs are inclosed in formidable jack-boots of yellow leather; and their faces are covered with a stiff and thick black horsehair veil, through which they can see perfectly, although it appears to the spectator like painted tin. Ladies of any consideration generally ride out astride on the backs of mares or asses, most generally the latter, which are fine large animals, and in many parts of the town are kept standing, ready saddled, for hire. Asses of a white colour are common, and are preferred for this service; but the taste of the people requires their appearance to be improved by stains of a dusty orange colour.

Baghdad was formerly a great emporium of eastern commerce. Besides the traffic in its own manufactures, it was the entrepôt for the commodities of Eastern and Western Asia. It was still, until very lately, a place of considerable trade, the commodities of India being brought thither by water, and thence dispersed by land to different parts of the Turkish empire; the Persians also took to Baghdad such of their goods as were intended for the Turkish market. But as the Persians now send to Constantinople by the safer and more direct road of Erzrum and Tocat, as the government of the Porte is too weak to protect the property of the merchants from the Arabs of the river and the desert, and as European commerce with India is now carried on by way of the Red Sea or the Cape, the trade of Baghdad has greatly declined. Persia too receives her supplies from India no longer through Baghdad, but directly by way of the Persian Gulf. There is now only one caravan yearly from each of the cities Aleppo and Damascus to Baghdad, conveying cotton-twist, calicoes, shirtings, prints, imitation shawls, woollen cloths, &c., generally of European manufacture. The cost of conveyance across the desert is enormous, the Shammar, Anezeh, and other Arab tribes, each laying a heavy toll upon the goods, which is submitted to in order to ward off their plundering propensities.

The chief manufactures of Baghdad are red and yellow leather, which are held in high estimation throughout Turkey; a sort of plush, in shawl patterns, often very rich and beautiful, and used by the Turks for covering the cushions which form their divans or sofas; Arabian cloaks, and some stuffs of silk and cotton. The exports in return to Damascus and Aleppo consist of specie, tombak, galls, buffalo hides, East India indigo, pearls, Cashmere shawls, Mocha coffee, &c.

Kerkuk, now the capital of a pashalic of that name, is situated near the source of the Adhem, at the eastern

extremity of the Kara-Chok hills, a limestone range which runs in a general north-west direction to the Great Zab. The town is large and open; part of it, as is the case with nearly every town in the province, is in ruins. It is inhabited by Arabs, Kurds, Osmanlis, Christians, and Jews. Date-trees flourish here. There are bitumen-beds near the town, which is defended by a fort built on a mound. The district north of Kerkuk, between the Tigris and the two Zabs, is renowned for its fertility. The principal part of it to the north-east of the Kara-Chok hills is called the plain of Shomamok, which is the granary of Baghdad. Its pastures are grazed by the flocks of the Tai Arabs. The cultivation is left to sedentary Arabs, Kurds, and Turkomans. Gazelles are very numerous in this district. Artificial mounds marking the sites of ancient Assyrian towns rise on all sides of the plain.

Suleimaniyah is situated about 70 miles E. from Kerkuk, at the foot of some hills at the extremity of a plain. It has about 1000 houses, but many of them are in ruins. There is a large bazaar well supplied with meat, fruit, and vegetables.

Erbil or *Arbil* stands in the plain of Shomamok: it consists of two towns, both of which however are in ruins. One of them, built on an ancient mound 300 yards long, 200 yards broad, and 70 feet high, is surrounded by a bastioned wall. The lower town is defended by a mud wall. Erbil has three large mosques, ten baths, and about 6000 inhabitants. This town, which marks the site of the ancient Arbela, sometimes gives name to the decisive battle that put an end to the Persian empire. The battle however was fought in the plain to the north of the Great Zab, on the banks of the Bumadus, now called the Ghazir and sometimes the Gomel. The ford by which Darius in his flight and Alexander in pursuit crossed the Zab, is a little above the mouth of the Kordereh, on the western side of the plain of Shomamok. Xenophon and the 10,000, after traversing the plain

between the Kara-Chok hills and the Tigris, marched along the left bank of the Zab and crossed this river by the same ford. In the plain west of the Kara-Chok is the great mound of Mokhamour, explored by Dr. Layard.

The limits of Khuzistan are so variously defined that in order not to multiply distinctions we will consider it nearly to correspond to the ancient Susiana, and to comprehend the country between the mountains of Luristan on the east and the Tigris on the west, and between the Diyalah on the north and the Persian Gulf on the south. The climate of this district is on the whole very similar to that of the city of Baghdad. The province may be described as actually a desert, although no soil could in its natural state be more fertile; and this is true of extensive territories which are called deserts in Western Asia, which only want water and the care of the cultivator to become luxuriantly productive. In Khuzistan however extensive morasses have been formed on sites once inhabited, and the sands of positive deserts have encroached upon its once fertile plains. The spots that still retain a productive soil are chiefly in the neighbourhood of the rivers, and either afford good pastures or richly repay the labour of cultivation. The cultivated districts are almost exclusively within the limits of Persia. Nearly all of Turkish Khuzistan is occupied by different tribes of Arabs. There are extensive rice-grounds and plantations of date-trees on the Shatt-el-Arab, on the Hafar, and on the Jerahi River. The dates of Khuzistan attain very high perfection, and those produced in the Mendeli district are considered the very best in the Baghdad pashalic, which is not much less than to say that they are the best in the world.

The portion of the pashalic of Baghdad which lies to the west of the Euphrates may be dismissed very briefly. Beyond the immediate vicinity of the river the whole territory is a desert of the most positive character—sandy, flat, without herbage and without water. The banks of

the river are however very fertile in many parts, and the annual overflowings of the river in its lower course form the most productive rice-grounds in the country.

PRODUCTS OF BAGHDAD.

The banks of the rivers are skirted to a great extent with the tamarisk shrub, which in some places grows to the height of 20 or 25 feet, and the liquorice plants which sometimes attain the height of 10 or 12 feet. These two form the firewood used at Baghdad and other places. The willow and poplar also frequently appear as shrubs, but they are not so common as the former. Tradition states that the castor-oil plant once grew luxuriantly in the country, but now there is only one specimen, which grows as a tree on the site of ancient Ctesiphon. The *Asclepias Syriaca* is tall and abundant in some places; and it is worthy of note that its follicles are when young eaten as beans by the Arabs, although with us this lactescent tribe is deemed poisonous and unfit for the food of man. The carob plant sometimes attains the height of 6 or 7 feet. Camel-thorn is very common, and a species of buckthorn is seen occasionally, as well as the blackberry bush. The caper shrub is rather common; the Arabs express a sweet juice from its berries, and eat the leaves as we do spinach. Among the other plants which fringe this desolate region the most common are a rare species of rue, and colocynth, the horizontal runners and gourds of which overspread large tracts of ground behind the brushwood which skirts the rivers. The desert pastures bloom in the winter and spring with a great variety of beautiful flowers. The marshes near the Tigris are in some parts thickly covered in the spring for the extent of many miles with the blossoms of the white floating crowfoot. Of the cultivated fruit-trees near the towns the date is by far the most important, as it contributes largely to the subsistence of the population. Grapes, figs, pomegranates, quinces, &c., are very good

and abundant; but apples, pears, oranges, &c., are of inferior size and quality: and cherries, gooseberries, strawberries, and currants are unknown. Melons, cucumbers, and onions are most abundant and excellent; but of these as well as of fruit and of cruciferous and leguminous plants, it may with few exceptions be stated that the species which are the rarest in this country are the most common in the Baghdad pashalic. The great heat of the climate in summer burns up almost every green thing. The winter is almost like a northern summer. Barley and wheat are reaped in the beginning of May. The hills to the east of the Tigris of course enjoy a cooler atmosphere than the plains of Mesopotamia, the temperature of which may be judged by that of BAGHDAD. Furious thunderstorms are not unfrequent in spring, and hot suffocating winds from the south and south-west often sweep over the country.

The principal wild birds of this region are black partridges, snipes, and wild doves; the lakes and marshes abound with wild geese and ducks, widgeons, and pelicans. The common fowl and pigeons are the only domestic birds. The wild animals are gazelles, lions, jackals, hogs, and hares. The lions are not numerous, and their haunts are chiefly among the sepulchral barrows of the Tigris. The jackals are more abundant and troublesome, and when they find an opportunity, enter the towns and villages during the night. The domestic animals are horses, asses, mules, buffaloes, single-humped camels, and dromedaries. The horses of the country, especially those reared by the Shammar and Aneezeh Arabs, are most beautiful animals. As beef is not an article of food, oxen are not reared for slaughter; but they are much employed in agricultural labour.

EUPHRATES AND TIGRIS.

THESE two large rivers of western Asia, unite their waters at Kurnah, in the lower part of the plain of Babylonia, and take the name of *Shatt-el-Arab*, which falls into the Persian Gulf near 30° N. lat., 48° 30′ E. long. Both rivers rise in the central table-land of Armenia, and after breaking through the Taurus inclose the great plains of Mesopotamia, the Euphrates forming the boundary on the west and south, and the Tigris on the east.

THE EUPHRATES FROM ITS SOURCE TO THE SAKLAWIYAH CANAL.

The Euphrates is formed about two hours above Kebban Maden (39° N. lat., 39° E. long.) by the confluence of two rivers, to both of which the name *Frat* is occasionally applied, but which are more generally known, the eastern as the Murad, the western as the Kara-Su.

The *Murad* rises on the west side of Ala-Tag, near the north-east termination of the mountain group that encircles Lake Van. The stream flows down a mountain ravine nearly six hours due north to Diyadin (39° 32′ N. lat., 43° 40′ E. long.), where it enters the plain of Arishkerd, and turning north-west flows in that direction about 24 miles to Kara-Kilisa. At Kara-Kilisa it receives the *Sheriwan-Su*, which flows east from its source near Molla-Suleiman. From Kara-Kilisa to the junction of the Char-Buhur (about 39° N. lat., 41° 30′ E. long.) the Murad flows in a general direction of south-west, having the mountain range of which Ala-Tag, Sapan-Tag, and Nimrud-Tag are the most remarkable summits, stretching parallel to it at a considerable distance on the south-east, and the Bingöl Mountains south of the

Aras and of Erzrum at about an equal distance to the north-west. Near Malaskird, a town about 36 miles below Kara-Kilisa, the Murad is joined by the *Kaleh-Su*, which has its source at Khinis, and flows from the north-west. Near the source of the Kaleh-Su is Khinis. The Char-Buhur rises in the angle between the Dujik and the Bin-Göl Mountains, and flows nearly east by south till it joins the Murad: the rivers meet in a straight line, the former coming from the west, the latter from the east, and the surface of the water at the point of junction is about 70 yards wide in the month of June, and 4138 feet above the sea. The united stream turns off at right angles to the south, through a narrow valley which widens gradually till it becomes part of the plain of Mush. The river retains the direction of south for about 10 miles, when it receives the Kara-Su, which traverses the plain of Mush. The Murad from its junction with the Kara-Su to the plain of Kharput flows in a general western direction, between the Dujik-Dagh on the north and the continuation of the Taurus Mountains on the south. Between the plain of Mush and Kharput the river is navigated by keleks, or rafts, loaded with charcoal, fire-wood, &c. For a short distance before the Murad enters the plain of Kharput the mountains close in upon it on both sides, so that the stream is narrowed in some places to a breadth of 33 yards. At Palu, on the northern side of the plain, the river in the month of July is 100 yards wide and the current very rapid: there is a ford opposite the town, but intricate and precarious. Below Palu the Murad receives a considerable feeder on the right, which is called the Perez-Su, and carries down the drainage of a considerable portion of the Dujik Mountains. A few miles below the junction of the Perez-Su the river turns north-west, and flows in that direction through a mountainous country for about 50 miles to its junction with the Kara-Su, or western Euphrates, a little above the village and lead-

mines of Kebban-Maden, and near the point indicated by 39° N. lat., 39° E. long. Where the Murad turns north-westward, below the junction of the Perez-Su, a small stream flowing eastward enters the river at this its most southern point, flowing through the plain of Kharput, and past the village of Alsham. Here the Murad is not more than 25 miles from the source of the Tigris.

The Kara-Su, or Western Euphrates, rises at Domlu, 7½ hours N.N.E. from Erzrum. Two hours below Domlu the stream enters the plain of Erzrum, through which it flows from east to west for about 40 miles. It there receives a torrent flowing from Kara-Kulak to the east, and the united stream turning to the south descends through a ravine into the plain of Tergan. The south boundary of the plain of Erzrum is formed by the mountains already noticed under the names Bingol-Tag and Dujik-Tag; the northern boundary by a range of highlands, continuations of the Antitaurus, which divide the basin of the Euphrates from the rivers which flow into the Black Sea. At the point where the river quits the plain of Erzrum it is 100 yards broad in the month of October. The plain of Terjan, at the lower end of the ravine by which the Kara-Su escapes from the plain of Erzrum, lies considerably lower, and has a much milder climate than the table-land about Erzrum. In the lower plain the Kara-Su receives the Mama-Khatun (a considerable stream which rises in the Bingol-Tag near the sources of the Aras), and becomes a considerable river, fordable only in few places even in the driest season. From the plain of Tergan the course of the Kara-Su to its junction with the Murad-Chai, a distance of about 130 miles, is in a general south-west direction, through a succession of difficult mountain passes and narrow but fertile plains. From Erzingan (which gives name to the fine plain of Erzingan) to Kemakh, a distance of about 26 miles, the Kara-Su flows through a mountain defile, having the Dujik range on the left, and on the right

mountains all but precipitous. Immediately above Kemakh the river forces its way through a deep narrow chasm; and just before it precipitates its waters into this rent in the mountains it receives the Keumer-Su from the west, a stream by which great quantities of wood are floated down. The Keumer-Su descends from the plain of Divrigi, about 60 miles to the west, and 3116 feet above the sea. The valley of the Keumer-Su has a considerable declivity, and the Kara-Su must therefore have sunk at the point of their junction much below its level in the plain of Erzrum.

From Kemakh to Egin is a distance of nearly 43 miles. There is sufficient water in the Kara-Su between Kemakh and Egin to render it navigable for boats, but the frequent rapids, rocks, and shoals impede the navigation. At Egin the mountains rise from the banks of the river by a steep slope, which is terminated by abrupt precipices; the whole height of the mountains above the stream may be about 4000 feet, and the valley is so narrow that they seem to overhang the town. From Egin to the confluence of the Kara-Su and Murad-Chai (about 35 miles), and thence to Kebban-Maden (about 5 miles farther), the channel of the river is obstructed by shoals and rocks and only employed in floating timber-rafts. At the ferry near Kebban-Maden the river is about 120 yards wide, deep, and rapid. The elevation of the confluence of the Kara-Su and Murad-Chai has not been ascertained, but it seems to be about 2700 feet above the level of the Black Sea. Below the confluence of its two head streams, near Kebban-Maden, the Euphrates follows the direction of the Kara-Su, and flows south-west through a naked mountainous country; and, after sweeping to the westward and half encircling the remarkable peninsula of Abdul'Wahab, formed by the rocky heights of Munghar, it receives the Tokhmah-Su at the pass of Iz-Oglu, the ancient Elegia, and takes an easterly bend to pass through the Taurus, between the rocky mountains of Bhagli-

Khanli and the Beg-Tagh. The Tokhmah-Su rises more to the west than any other affluent of the Euphrates. The Injeh-Su and the Balikli-Su, which by their junction form this river, have their sources about 36½° E. long., and between 38½° and 39° N. lat., about 4000 to 5000 feet above the sea. The Tokhmah-Su has a course of upwards of 100 miles, and runs a little to the northward of Malatiyah, which is about 12 miles from the right bank of the Euphrates.

Near the ferry of Fez-Oglu, a few miles below the confluence of the Tokhmah-Su, the Euphrates precipitates itself through a gap in the mountains which extend from east to west between the Murad and the Upper Tigris, and curves through them with a general easterly direction to Gergen-Kaleshi, a distance of about 45 miles. In this part of its course the stream is hemmed in by lofty precipices and interrupted by rocks and small rapids, but warlike stores have been floated downwards on rafts. The subsequent course of the river as far as the mouth of the Saklawiyah Canal (about 33° 25′ N. lat., 40° 50′ E. long.), where it may be considered as having entered the central plain, is through an upland country, furrowed by alternate ridges and depressions, with a general declivity to the south-east. From Sumeisat (the ancient Samosata), 45 miles below Gergen-Kaleshi, the Euphrates is navigable without serious interruption to the sea. From Sumeisat to Rum-Kaleh, a distance of 51 miles, following the windings of the stream, the river flows W.S.W. Its course thence to Balis (36° 1′ N. lat., 38° 7′ E. long.), a distance of 114 miles, winds along a line running north and south. Fourteen miles below Rum-Kaleh, at Graun, the channel of the Euphrates is only 80½ miles distant in a direct line from the Mediterranean at Bayas. At this point the river is 628⅓ feet above the level of the Mediterranean at the mouth of the Orontes, from which it is distant 133 miles in a direct line, which gives only a fall of little more than 6 inches per mile to the Persian Gulf (distant 1117 miles),

assuming the level of that sea to be the same as the level of the Mediterranean. Twenty-five miles below Bir the Euphrates receives from the west one arm of the Sajur, and 5 miles lower down another; this is a considerable affluent, the lowest of any importance that falls into it on that side. At Balis, 88 miles below Bir, the river turns to the south-east, a general direction which, making allowance for its windings, it may be said to retain till it reaches the Persian Gulf. Near Rakkah it receives on the east bank the Belik, which rises near Harran, to the north. After a tortuous course of 80 miles the Euphrates breaks through a chain of hills which comes on the west from Palmyra, and on the opposite side of the river, from the direction of Sinjar. In this pass the river flows in a small channel 250 yards wide and 7 fathoms deep, between precipices which rise abruptly 200 or 500 feet from the water's edge. Fifty miles from this pass, by the windings of the river, but little more than half that distance in a straight line, the Khabur (the ancient Chaboras) falls into the Euphrates from the north, bringing down the drainage of Mount Masius and the eastern part of the Taurus. The Khabur enters the Euphrates in 35° 6′ N. lat., 40° 27′ E. long. From the Khabur to the Werdi, 75½ miles by the river, 45½ in a straight line S.E. by S., the Euphrates has an average width of 400 yards, with an ordinary depth of 18 feet, and a current of four miles an hour during the floods: it forms many islands. Between Werdi and Anah (the ancient Anatho), 92 miles, 50¾ miles east in a straight line, the river has at the same season a breadth of 350 yards, a depth of 18 feet, and a current of 4 miles an hour. About 100 miles below Anah the Euphrates passes Hit, well known for its bituminous fountains, which are mentioned by Herodotus (i. 178) under the name of Is. Seventy miles below Hit, at the mouth of the Saklawiyah Canal, it has entered the great central plain. From Werdi to near the mouth of this canal a range of hills extends at a distance

of some miles along the north-eastern bank of the Euphrates, the opposite declivity of which sinks to the bed of the Tarthar. The high ground on the south-west side of the Euphrates extends a few miles farther to the south than that on the opposite bank; and at its termination, curving round to the north-east, approaches nearer the river, and terminates in an abrupt cape, surrounded on all sides by the level plains of Babylon.

THE TIGRIS FROM ITS SOURCE TO ITS JUNCTION WITH THE EUPHRATES.

This river has its source in the mountain range which forms the southern wall of the valley of the Murad-Chai, near Alishan, and not much more than 10 miles distant from the most easterly point of the bend of the Euphrates, between Malatiyah and Someisat. The Tigris runs from its source 25 miles to the north-east, and about 4568 feet above the sea. It then flows southward for nearly the same distance, and, receiving near the mines of Arghana-Maden a small stream from the west, adopts the course of this tributary, and then flows again towards Diar-Bekr (about 37° 55′ N. lat., 39° 55′ E. long.), distant 40 miles in a straight line. Opposite Diar-Bekr the Tigris is about 250 yards wide in the season of floods, but it is only used to float timber-rafts from the mountains. At Diar-Bekr the Tigris turns suddenly round to the east, and continues to flow in that direction for 105 miles, till it receives the Bitlis River on its left bank. Here the Tigris flows parallel to the high mountains which separate its valley from that of the Murad-Chai, an extensive plain intervening between its banks and their bases. On the south the river has the hill range, on the opposite side of which are the sources of the Khabur.

From its junction with the Bitlis River, the Tigris bends round to the south, and it continues nearly in the direction of south-east to the mouth of the great Zab

(36° N. lat., 43° 20′ E. long.). For the greater part of this distance the range of hills which separates the valley of Diar-Bekr from the basin of the Upper Khabur accompanies the Tigris on the south-east; they terminate on its banks a little to the north of Mosul (36° 20′ N. lat., 43° 15′ E. long.). In this interval the Tigris receives a number of affluents on both banks, the most important of which is the Eastern Khabur. The Khabur, at its junction with the Tigris, comes from the north of east, but 30 miles farther up it comes from the north. It rises high up among the Arjerosh-Dagh, which bound the southern shores of Lake Van.

The main branch of the Zab Ala, *Upper* or *Great Zab*, has its source on the slope of the Sar-al-Bagh range, at an elevation of about 7500 feet above the sea, and nearly midway between the lakes of Van and Urumiyah. At first the Zab flows to the south, but about 37° 19′ N. lat. it turns to the west-south-west. Near the village of Kiyau it receives the Berdizawi (called also by the inhabitants the Lesser Zab), which is said to rise in the Erdosh, or Arjerosh-Tag, a few miles south of the eastern termination of Lake Van, and which descends to the principal stream in a succession of cataracts. After the junction the Zab flows south-east till about 12 miles east of Amadiyah, from which point its course is rather to the north of east, to 10 miles west of Rowandiz, where it receives a large affluent. Between Amadiyah and Rowandiz, the Zab has on the north the colossal mountains in which it has its rise; on the south a range of hills which stretch from near the mouth of the Eastern Khabur to the base of Mound Rowandiz (11,000 feet above the sea). Turning round between the base of Rowandiz and the eastern extremity of this ridge, the Zab crosses a hill-range parallel to it on the south, and flows south-west to the Tigris, which it enters with a deep stream 60 feet wide, but the width is much greater a little higher up.

About 84 miles below the mouth of the Great Zab the Tigris forces its way through the Hamrin Hills. About 12 miles below the Great Zab there is a ford in the Tigris; 20 miles farther down it receives an affluent from the west near Kalah Shirkat; and 28 miles below this it is joined by the Zab-Asfal, *Lower* or *Lesser Zab*, from the north-east. The main branch of this tributary rises 20 miles south-west of the south extremity of Lake Urumiyah; flows 30 miles to the south-east, and then turns abruptly to the south-west; about 20 miles onwards it receives four affluents from the mountains to the south-east, and carries to the Tigris, after flowing parallel to the Great Zab for the last 50 or 60 miles of its course, a deep stream 25 feet broad. At the point of junction the Tigris has a breadth of 500 yards. Below the passage of the river through the Hamrin Hills, high grounds, which separate its valley from the Valley of the Tarthar, extend close to the termination of the Median Wall. Here the Tigris issues from the hills into the great central plain. Between Diar-Bekr and Mosul (296 miles) the river is navigable for rafts at certain seasons; below Mosul it is navigable throughout the year.

A few miles below Baghdad the Tigris is joined by the Diyalah, which is known in its upper course as the river of Shirwan. This river rises among the mountains above Hamadan, near 34° 40′ N. lat., 47° 30′ E. long., and flows for about 30 miles from east to west; then turning at first to the north of west, for nearly 100 miles in a semicircular sweep round the base of Mount Dalahu, it receives a number of streams on its south bank. Some of the summits of this mountain group rise, by the estimate of Major Rawlinson, 5000 feet above their base. At the most northern part of its course the Shirwan receives the waters of the Taj, one of whose branches comes from Suleimaniyah. It then flows south-east for about 30 miles, till it issues into the plain through a gap in the Hamrin Hills. Above these hills the river flows

in a strong rapid current 400 yards broad. Its breadth at its mouth at Ctesiphon, above the Zak Kesra, is about 60 yards. From the Kermanshah district the Diyalah receives the Holwan and the Arwand.

Five miles below Baghdad the Saklawiyah Canal, from the Euphrates, joins the Tigris; the distance along this canal from river to river being 45 miles. The current (in the season of floods) is about 4 miles an hour, from the Euphrates to the Tigris. On the parallel of Baghdad, the canal expands to a considerable lake, which again contracts into a narrow channel before it joins the Tigris. The Diyalah, which joins the Tigris 21 miles below the mouth of the Saklawiyah Canal, brings into the Tigris a large body of water. From the confluence the course of the Tigris is extremely winding, but its general direction is south-east. About 97½ miles in a straight line from Baghdad in that direction, it reaches Kut-el-amarah, a small town on its left bank, where a bifurcation takes place; and here the Tigris, instead of receiving an addition to its waters from the Euphrates, as by the Saklawiyah, sends a considerable stream to that river. The smaller branch, called Shat-el-hai, flows south and joins the Euphrates, after giving off a number of canals on both sides, about 140 miles from Kut-el-amarah: it is navigable throughout for light boats. The main branch of the Tigris turns off at that town to the north of east, with an apparently undiminished stream (200 yards broad), and flowing in that direction 28 miles, and then south by east 32 miles, reaches Imam Gharbi, the most distant part of its course in the plain from the Euphrates (95 miles). At 66 miles (by water) a channel called Hud flows off on the east bank, and joins the Kerkhah near Hawizah. Ten or eleven miles below Imam Gharbi, the Tigris turns south to 84° E. long., becomes deep and narrow, and makes a number of abrupt bends through a marshy plain for 40 miles to the tomb of Ezra. It there resumes its former breadth, and winds in a general

south direction to its junction with the Euphrates at Kurnah, a distance of about 123 miles by the windings of the river. The current of the Tigris in the plain averages one mile and a half in the hour.

THE EUPHRATES FROM THE SAKLAWIYEH CANAL TO THE PERSIAN GULF.

From the Saklawiyeh Canal the Euphrates flows south-east, through a pastoral country, 43 miles, to the Mounds of Mohammed: it is here only 18 miles distant from the Tigris. From the Mounds of Mohammed the river flows across a flat barren country to Hillah (32° 28′ 35″ N. lat., 44° 28′ 40·5″ E. long.), which is almost due south of Baghdad, and between 50 and 60 miles distant from it. In this part of its course the stream has an average breadth of 200 yards, with an ordinary depth of 15 feet, and a current of barely 2½ miles an hour. From Hillah to a bifurcation a short way above Lemlun (a distance of 75½ miles by water, or 55¾ miles S.E. by S. direct), the volume of water in the Euphrates is materially diminished by canals of irrigation. The two narrow channels formed at this point reunite at Karayem (33½ miles from the bifurcation), after flowing in short bends through a marshy country. On issuing from these marshes the Euphrates suddenly re-appears on its former large scale, inclosed between high banks covered with jungle. At 56¼ miles from Karayem the Euphrates is joined by the Hai, the branch which diverges from the Tigris at Kut-el-amarah; and 78 miles farther on it receives at Kurnah the waters of the main branch. The distance (by water) from the remotest sources of the Tigris to Kurnah is about 1146 miles, little more than half the length of the Euphrates. The Euphrates and Tigris now form one tidal channel, known by the name of the Shat-el-Arab, about half a mile wide, which flows S.E. by S. almost in a straight line. Five miles below Kurnah it is joined by the Kerkhah, which, near Hawiza, where it leaves the hills, receives the

Hud from the Tigris. From Kurnah to Basrah is 39½ miles by the river, and thence to Mohammarah, where the Harfar Canal brings the main portion of the Karun into the Shat-el-Arab, is 22½ miles by water. Between Kurnah and Basrah the river has an average breadth of 600 yards, with a depth of 21 feet; between Basrah and Mohammarah, a breadth of 700 yards, and a depth of 30 feet. The current below Kurnah is 2 miles an hour during the flood and 3 miles during the ebb tide. Between Kurnah and Mohammarah the river forms five islands, all large. The Shat-el-Arab discharges the united waters of the Euphrates and the Tigris into the sea at Basrah. It is navigable in mid-stream for vessels of 500 tons.

The basin of the Euphrates (giving that name to the area drained by all the waters which enter the Persian Gulf by the Shat-el-Arab) comprises about 108,000 square miles. The melting of the snows on the mountains and table-lands of Armenia, causes the Euphrates to rise from the end of March to the end of May, when the floods are at their height, about 14 feet. The same cause, aided by the melting of the snows on the mountains of Kurdistan, occasions a rise in the Tigris of about 20 feet. The tide ascends the Euphrates above Kurnah, a distance of 60 miles; it scarcely extends 35 miles up the Tigris.

KURDISTAN.

KURDISTAN comprehends the larger portion of that mountain region which divides the elevated table-land of Iran (Persia) from the low plains of Mesopotamia, or Al-Jezireh. The name signifies "Land of the Kurds," and as this lawless people have spread themselves over a large part of Armenia, and even into the eastern parts of Asia Minor, the term is frequently used in a loose sense so as to include a much wider range of country than that to which it properly applies. The mountain range of the Erdesh-Dagh, or Arjerosh-Dagh (38° 30′ N. lat.), constitutes the boundary line between Armenia and Kurdistan. From this range Kurdistan extends in a south-eastern direction to the Persian province of Luristan, or to about 34° N. lat. The greatest width of this mountain region is about 130 miles, and the area of the whole may be about 28,000 square miles. About three-fourths of it are under the dominion of the Sultan, and form portions of the eyalets of Baghdad, Mosul, and Van; the remainder belongs to Persia, and constitutes the province of Kurdistan, of which Kermanshah is the capital.

The higher mountain region occupies the northern portion, and extends from the Erdosh-Tagh to a range which on the west approaches the left bank of the Tigris south of Jezireh-ibn-Omar, and extends thence in an east-by-south direction across the whole region, being over-topped near the boundary-line of Persia by the elevated peak of Rowandiz (10,120 feet above the sea level). This range is called at its western extremity, where it hardly

rises 1000 feet above the sea-level, the Soli Range; but in the middle, where it attains 3000 feet and more, the El-Khaïr Mountains: it is still higher where it approaches the table-land of Iran. The whole country between this range and the Erdosh-Tagh is mountainous. In the vicinity of its northern limits the rocky masses are rarely and not deeply furrowed by depressions in the shape of valleys. They form a table-land from 6000 to 7000 feet elevated above the sea-level, whose surface presents a succession of low hills with gentle declivities and small plains between them. This is the table-land of Ali-Bagh, on which very few lofty summits rise. The climate is very dry, and the vegetation scanty. It is mostly used as pasture-ground in summer. In proceeding southward the country gradually changes its features. The valleys sink deeper and the masses between them rise higher, and thus the table-land is changed into a mountainous country consisting of high ridges with steep acclivities and comparatively narrow valleys between them. Some of the ridges attain a great elevation, as the Maranman Mountains, the Jawar-Tagh, and the Jelooh Mountains; the Jawar-Tagh appears to be the highest, and to rise between 12,000 and 13,000 feet above the sea. The declivities of the ridges and the valleys present a vigorous vegetation in the numerous forests and in the growth of the different kinds of grain and vegetables which are cultivated. The forests chiefly consist of different kinds of oak, from which immense quantities of gall-nuts are collected. In the valleys the European *Cerealia* are raised; and the orchards produce apples, pears, plums, and cherries. Many of the valleys open towards the plain of Mesopotamia, and these are wider; but the larger number extend from north to south, and are seldom more than two miles wide, and generally not quite so much.

This portion of Kurdistan is in possession of some tribes of Kurds, which were till lately almost independent. Probably more than half the population are

Mohammedans, and the other half Christians, among whom the Nestorians are the most numerous. Their patriarch resides in Julamerik, a small town situated in the vale of the river Zab-Ala, or Great-Zab. Near the southern extremity of this region are the towns of AMADIYAH and Rowandiz. The town of *Rowandiz* is some miles west of the peak of Rowandiz. It is built on a tongue of land formed by the confluence of two rivers, and contains more than 1000 houses, and perhaps 10,000 inhabitants. Numerous caravans pass between this place and Mosul. They export gall-nuts, madder, hides, and tobacco, and bring back several European and Indian articles. In ancient times the district just noticed was called Cordyene, or Gordyene, which was occupied by the Karduchi, the ancestors of the Kurds, and evidently named from them also.

The largest river of Kurdistan is the *Zab-Ala*, or *Great Zab*. It rises in the north-western corner of the table-land of Ali-Bagh, or Elbagh, at an elevation of about 7000 feet above the sea-level; receives by its numerous affluents the drainage of a great part of Northern Kurdistan, enters Southern Kurdistan by a narrow glen where the Kara-Tagh Mountains are connected with the Khaïr range, and joins the Tigris about 30 miles below Mosul. At the place of their confluence the rivers are nearly equal in size. The waters of the Tigris are highest in April and May, those of the Zab in June and July, for about that season the greater part of the snow with which the mountain region is covered during the long winter dissolves, and thus the water brought down by this affluent serves during the summer to keep up the level in the lower part of the Tigris. The water of the Zab-Ala is much colder than that of the Tigris. The other large rivers of Kurdistan are the Zab-Asfal, or Lesser Zab, and the Diyálah. They rise in the elevated region dividing Southern Kurdistan from the table-land of Iran, and after draining the first-mentioned country they

fall into the Tigris; they break through all the lower ridges of Southern Kurdistan.

The climate of Kurdistan is excessively cold in winter, when the mountainous region is covered with snow for six months in the year. The heat in summer in the plains and valleys to the south is very oppressive, especially during the north-eastern winds, which suddenly raise the temperature 10 degrees and more. When the sherki, or north-east wind, does not blow, the changes of the atmosphere are very regular in summer.

The fields of Kurdistan produce wheat, barley, and Indian corn; millet and rice are grown only in the lower districts towards the banks of the Tigris. Tobacco and cotton are largely cultivated, and supply articles of commerce. Legumes, especially lentils, are much grown. Melons, water-melons, and cucumbers are very abundant. The orchards yield figs, pomegranates, olives, oranges, walnuts, apricots, peaches, plums, apples, pears, cherries, and abundance of grapes of good quality; in some places there are plantations of dates. Poplar and chinar trees are planted, and among the forest trees are many kinds of oak; the pear-tree and rose-bush grow wild.

Sheep, cattle, and horses abound. There are bears, wild hogs, wild goats, antelopes, and jackals. Land-turtles are frequent, but of small size. Bees are very abundant, and honey is a considerable article of commerce; locusts sometimes lay waste a part of the country; birds are not numerous, except partridges and quails.

Minerals appear to be scarce, except building-stone. In the mountain-region iron and sulphur are met with; and in some places these mines are worked on a small scale. There are several salt-springs in the hills between the Lesser Zab and the Diyálah, from which large quantities of salt are obtained. Naphtha and petroleum abound, especially in the vicinity of Kerkuk.

Commerce is carried on by caravans. At least one caravan departs every month from Suleimaniyeh for the

Persian towns of Tabriz and Hamadan. They take to Tabriz chiefly goods obtained from Baghdad, as coffee, dates, and European and Indian manufactures; and bring back large quantities of silk for the manufactures of Baghdad, and some silk stuffs. The exports of Hamadan consist partly of goods obtained from Baghdad, and partly of the produce of the country, as tobacco, fruits, honey, gall-nuts, &c.; the imports consist of butter, but especially of the manufactures of Kasbin, as velvets, brocades, cotton-goods, &c. The commerce with Kerkuk, which is the chief market for the produce of Kurdistan, is very active; from that place are brought to Suleimaniyeh gall-nuts, honey, sheep-skins, and cattle; and exchanged for fruits, rice, leather, coffee, cotton-stuffs, &c. From Northern Kurdistan the chief articles are gall-nuts and manna, which are disposed of chiefly at Bitlis and Van. There is also much commerce with Mosul and Baghdad, where coffee, dates, and European and Indian goods are obtained in exchange for the silk brought from Tabriz, and for the produce of the country, consisting of sheep, gall-nuts, sumach, cheese, butter, gummi, tallow, soap, and tobacco.

The population of Turkish Kurdistan is estimated at one million, of which four-fifths are Kurds, and the remainder Armenians, Persians, Jews, and Turks. The Kurdish population of Persian Kurdistan may amount to 20,000 individuals, but as a numerous colony of Kurds is found in Khorassan, and several tribes are dispersed over the hilly region in Mesopotamia, over Armenia, and as far west as Aleppo and the Taurus range, the whole population of the nation may perhaps not fall far short of two millions. The Kurds are a stout race of men, of dark complexion, with black hair, large mouth, small eyes, and a savage look. They are very regularly built, and attain a great age. Their language is derived from the same stock as that of the modern Persian, but not having been fixed by writing, it has degenerated much

more. The name of Kurd signifies a valiant warrior, and is therefore adopted as an honourable denomination. A great portion of the population is still addicted to a migratory life. Even when settled in villages, they leave them in summer, and retire with their herds to the adjacent mountain ranges, from which they return when the harvest time approaches. Though the Kurds are Mohammedans like their neighbours, their women enjoy a much greater degree of liberty, and are frequently met with in the streets. Ladies of rank wear a veil, but the women of the middling and lower classes go without. The Kurds are noted robbers.

MESOPOTAMIA.

MESOPOTAMIA (from the Greek μεσος, middle, and ποταμος, river), "the country between the rivers," is a term which was used by the Greek and Roman geographers (Strabo and others) to comprehend all the countries which lie between the rivers Euphrates and Tigris, and it is still in use. The Arabs and Turks call this country, by the corresponding name of Al Jezirah, or "the island." Mesopotamia was called in the Old Testament Aram-Naharaim, that is, "Aram," or "Syria between the two rivers." By ancient geographers it was considered to be bounded N. by Mount Masius (Karajah-Dagh), a branch of Mount Taurus, and S. by the Median Wall and the canals which connected the Tigris and Euphrates, by which it was separated from Babylonia. The name did not come into use till after the time of the Macedonian conquest of Asia. The southern part of Mesopotamia Xenophon calls Arabia ("Anab.," i. 5, sec. 1); and other writers included it, especially the northern part, under the general name of Syria. (Strabo, p. 737.) It was considered by the Romans a division of Syria. (Mela, i. 11; Pliny, v. 13.) The northern part of Mesopotamia, as thus restricted, was in ancient times divided into two parts by the river Aborras or Chaboras (Khabour), called Araxes by Xenophon ("Anab.," i. 4, sec. 19), which rises in Mount Masius, and receiving the Mygdonius (Jakhjakhah) on the east, flows into the Euphrates at Circesium, the Carchemish of the Old Testament. Of these divisions the western was called Osroene, and the eastern Mygdonia.

The name Mesopotamia, taken in its proper sense, ought to include all the country that is inclosed, or nearly so, between the two rivers; but from the boundaries ascribed to Mesopotamia by Strabo and others it is clear that the upper plain of the Tigris was not comprised in this designation. The great southern plain of Mesopotamia embraces all the countries between the two rivers, from 36° 30′ N. lat. to the Chalu or Median Wall, which begins on the banks of the Tigris, near 34° N. lat., and terminates on the Euphrates, near 33° 30′ N. lat.; and, lastly, the plain of Babylonia (Irak-Arabi), which extends southward from the Median Wall to the confluence of the two rivers.

The upper plain of the Tigris is included in the hilly region of Mesopotamia, which extends south from the Kharzan-Tagh to the great caravan-road that runs from Bir-eh-jik, on the Euphrates, to Mosul on the Tigris, through Urfah or Orfah, Mardin, and Nisibin. This region lies between 38° 30′ and 37° N. lat., and between 38° and 43° E. long., and extends about 100 miles from north to south, and 250 miles from east to west, so that its area may be roughly estimated at 25,000 square miles. This country may be considered as a lower terrace of the table-land of Armenia. The northern districts are about 2500 feet above the sea-level, from which elevation it gradually descends to about 1000 feet, or somewhat more, where it is contiguous to the southern plain of Mesopotamia along the caravan-road. Only the most eastern part of this road between Tel-Rumaláh and Mosul is at a lower evel, and runs through the Great Desert Plain.

The highest part of this region is that which on the western side touches the banks of the Euphrates between Izoglu and Gerger, where the river forms its 300 cataracts; and on the east on the upper course of the Tigris between its source and the town of Diarbekr, which is nearly 2500 feet above the sea: the source of the Tigris is nearly 5000 feet. The level of the surface of the

Euphrates near the confluence of the Kara-Su and Murad is upwards of 2500 feet, and at Gerger probably less than 1800 feet. But the rocky mountain masses which rise abruptly from the water's edge, at many places perpendicularly, generally attain near the river an elevation of between 2000 and 3000 feet, and a greater height at some distance from it. The highest portion of this tract must therefore be more than 5000 feet, and it may be 6000 feet. In the depressions are small villages surrounded by walnut-trees and a little cultivation, but the inhabitants subsist chiefly upon their cattle and sheep.

THE PLAIN OF DIARBEKR.

East of this mountain tract lies the Plain of Diarbekr, or of the Upper Tigris, which extends from some miles west of the town of Diarbekr to some distance east of the town of Sert, about 120 miles in length, and from the Kharzan Mountains on the north to the Karajah-Dagh on the south, from 40 to 50 miles; on the east it is shut in by the mountains of Kurdistan. The southern slope of Kharzan, or Mush-Dagh, is in many places interrupted by terraces from two to three miles in width. These terraces are generally used as pasture-grounds; they are cut by wide valleys, which descend from the summit of the range to the plain below, and are drained by feeders of the Tigris. Rich crops of wheat and barley are obtained everywhere, and in some places, where irrigation can be practised, rice is grown. The sides of the hills which inclose the valleys, and the valleys themselves, are partly covered with orchards and plantations, consisting of walnuts, figs, vines, pomegranates, mulberries, and the fruit-trees of Northern Europe. In some places cotton, melons, and plantains are grown to some extent. The steeper portions of the mountains are chiefly covered with woods, in which the manna and gall-oaks abound. In some parts the declivities of the hills have been transformed into terraces, which are planted with fruit-trees, and irrigated.

The Plain of Diarbekr itself is arid, much less fertile, and not cultivated with such care as these valleys. Its surface may at the lower part be about 1700 or 1800 feet above the sea-level. There are many tracts which are quite level, and others have an undulating surface; a few are hilly. The rivers, especially the Tigris, run in beds deeply depressed below the general level of the country, which renders it difficult and expensive to use the waters for irrigation; and as the summers are hot and dry, only those tracts can be cultivated which have a better soil. The others are only used as pasture-ground during the wet season, and until the grass is dried up by the heat. In some parts the surface is bare of mould, and consists of naked rocks. There are no trees on this plain except mulberries and poplars, which are planted in some places. Corn and barley are grown, and some cotton, and also maize. In the vicinity of the town of Diarbekr cultivation is carried on with more vigour: flax is also grown.

Near the banks of the Euphrates where the mountain masses have sunk down to 1200 or even 800 feet above the level of the river, the edge of the masses is split and indented, and numerous small valleys are found between the high ridges. In these valleys some corn is cultivated, but the largest part of them is covered with orchards, consisting of olives, pomegranates, mulberries, pears, peaches, and quinces; all of them have also excellent vine plantations. In some parts cotton is cultivated.

The country through which the caravan road between Bir-eh-jik and Mosul runs, has great variety of surface and soil. Between Bir-eh-jik and Urfah it is hilly, and contains many cultivated tracts. Farther east, as far as Mardin, cultivated and wooded tracts, mostly situated in depressions, or valleys alternate with plains, which in some cases afford pasture, and in others are quite sterile. This tract is very uneven, and the ridges running south and north rise to high hills, generally of a conical shape. These ridges continue to Nisibin, but are less frequent.

Between them run some watercourses, which, after being used for irrigation, are lost in the desert country that lies farther south. East of Nisibin cultivation ceases; but as in this part there are numerous watercourses, the adjacent country has pasture even during the summer months.

The climate of this region is much colder than that of Europe in the same parallel. In January and February a great quantity of snow falls. The spring hardly exceeds six weeks, and in May the dry season begins, in which little rain falls to the end of October or the commencement of November. The thermometer rises to 90°, and all grass and minor vegetation dries up. Pasture is then only found in the vicinity of the pools and cisterns, which are common in many parts of the table-land. Nature becomes reanimated in the month of November when very heavy rains fall. Among the products of this region are wheat, beans, barley, rice, lentiles, durrha; cucumbers, melons, pumpkins; mulberries, pomegranates, walnuts, figs, cherries, plums, apples, pears, quinces, almonds, chestnuts, filberts, &c.; tobacco, sesamum, castor-oil; hemp, flax, safflower, cotton; capers, mustard, liquorice, and asparagus. The four last grow wild.

Sheep, cattle, and goats, constitute the wealth of the nomadic tribes. There are two kinds of sheep, the Tartarian, with the fat tail, which often weighs 15 lbs., and the Arabian, whose tail is not much thicker than that of our sheep. Horses are numerous; asses are also kept in great numbers. Camels are used on the caravan road.

The most common wild animals are wild boars, deer of two or three different kinds, wolves, foxes, hyænas, jackals, bears, polecats, martens, marmots, hamsters (*Cricetus vulgaris*), squirrels, porcupines, and hares. There are several kinds of vultures, falcons, and owls; ravens, crows, jackdaws, thrushes, beccaficos, and other smaller birds. Fish abound in both the Euphrates and the Tigris, and also in several of their confluents. There are also several kinds of turtles, snakes, and lizards.

The hilly region of Mesopotamia constitutes the pashalik of Diarbekr; but the most south-eastern districts of it are sometimes placed under the pasha of Mosul. The most remarkable places are situated either in the plain of Diarbekr or along the caravan road between Bir-eh-jik and Mosul.

PRINCIPAL TOWNS IN MESOPOTAMIA.

DIARBEKR, which stands at a short distance from the right bank of the Tigris, the intervening space being occupied by gardens. The area of the town is considerable and nearly circular in form; the walls, which are pierced four gates, are lofty and substantial, built of the ruins of by more ancient edifices, surmounted by a castellated parapet, and strengthened by numerous round and square towers, which are most thickly placed on the northern side. Formerly the town was inhabited by 40,000 families; had extensive manufactures, especially of cotton goods; and carried on a very active commerce with India through Baghdad, and with Europe through Aleppo. But the fertile plain in which it stands, and which was cultivated in every part and studded with villages of 400 to 500 houses each, has in the present century been laid waste by the Kurds; the commerce with Baghdad was annihilated, and that with Aleppo reduced to insignificance. Still it contains about 8000 families (1500 are Armenians, 85 Catholic, 70 Greek, 50 Jewish, and 6300 Turkish), and some manufactures of cotton, silk, and morocco leather. The town is admirably situated for commerce, and to restore its prosperity nothing is required but to secure safe communication with Baghdad and Aleppo. The Tigris cannot be used as a means of transport so high up as Diarbekr, but rafts of timber are sometimes floated down from the mountains above the town. The streets of Diarbekr are well built and well paved, but narrow, as in most hot climates. The houses generally are built in their lower stories with black basalt and in the upper with dark-coloured brick. The principal buildings are the 20

mosques, 15 khans, the bazaars, 20 baths, and the citadel, built on the highest part of the rock above the river in the north-east part of the town, in which the pasha formerly resided. The citadel is now in ruins; its site commands a most extensive view, including the Karajah-Dagh to the west, the Moosh-Dagh to the north, the plain of the Upper Tigris, the Mardin hills to the south-east, and the plain of Urfah on the south. The climate is very hot in summer; in winter it is delightful.

Along the caravan road are the towns of Urfáh, or Orfáh, Mardin, and Nisibin. *Urfáh* (*Orfa*, the ancient *Edessa*), the most western, is at the base of a hill, and is a well-built large place, which is frequently compared with Damascus. It is surrounded by high and strong walls 7 miles in circuit, and has between 40,000 and 50,000 inhabitants. The most remarkable of its numerous mosques is the grand mosque, which in its exterior and interior exhibits a considerable degree of magnificence. With this building are united several medresses, where young men are instructed in the Koran, divinity, and the law. Edessa was the chief town of Osroene. It was also called Antiochia and Callirrhoe (Pliny, v. 21), and is supposed to be the Erech of the Old Testament. (Gen. x. 10.) Edessa suffered greatly by an earthquake in the time of Justinian, who rebuilt a considerable part of the town, and gave it the name of Justinopolis. Orfa was plundered by the army of Timur in 1393, but it soon recovered its former importance. South of Orfa was the ancient town of *Charræ*, the *Haran* of the Scriptures, where Abraham's family dwelt after they had left Ur of the Chaldees. In the time of Hezekiah, Haran had been conquered by the Assyrians. It is mentioned by Ezekiel as a place of commercial importance. Charræ is memorable in Roman history for the defeat of Crassus (Dion Cassius, xl. 25; Pliny, v. 21).

Nisibin (the ancient *Nisibis*), farther east, had sunk down to the condition of a miserable village, but in modern

times the Turks have partially rebuilt it. Nisibis, the chief town of Mygdonia, also called Antiochia Mygdonica, was situated on the river Mygdonius, in the midst of a fertile plain at the foot of Mount Masius. It was surrounded by three brick walls, and was very strongly fortified. Sapor was repulsed in three separate attacks upon the town, but it was ceded to him by treaty in A.D. 363. The Zoba of the Old Testament (1 Sam. xiv. 47 ; 2 Sam. viii. 3) is supposed to be the same town as Nisibis, since the Syriac writers frequently mention Nisibis under the former name. To the north of Nisibis was Daras (*Dara*), which was fortified by Anastasius I. (A.D. 506), who gave to it the name of Anastasiopolis. There are considerable ruins both of Nisibis and Daras.

The town of *Suverek* or *Severek* lies on the direct road between Urfah and Diarbekr, in a depression in the midst of the table-land. In the surrounding country wheat is raised to a considerable extent, and orchards are numerous. The place contains 2000 families.

The only place, except Diarbekr, built on the banks of the Tigris which requires notice is Jezirah-Ibn-Omar (the Island of the son of Omar), which was built on an island in the river. It was long the seat of a rebellious chief of the Kurds, and contains a population of about 1000.

THE SOUTHERN PLAIN OF MESOPOTAMIA.

The Great Southern Plain, sometimes called the Desert of Mesopotamia, extends from the great caravan-road leading from Bir-eh-jik to Mosul to the Median Wall, or from 37° to 33° 30′ N. lat., and between 38° and 44° E. long. At its northern extremity it is nearly 300 miles wide ; but as the Euphrates and Tigris approach nearer to each other in their course to the south, the country grows narrower, and at its southern extremity it is hardly fifty miles wide. The length from north-west to south-east may be about 250 miles, and the average width about 150 miles. This gives an area of 37,500 square miles.

The level of this region at its northern extremity and in the vicinity of Mardin is between 1300 and 1400 feet above the sea, but it decreases as it approaches the rivers; Mosul on the Tigris is only about 400 feet, and Bir-ch-jik on the Euphrates 650 feet above the sea-level. The course of the rivers and streams shows that it descends towards the south. At its southern extremity near the Median Wall it probably does not exceed 200 feet above the sea.

The country is a plain, but there are a few isolated ridges of high hills, which however do not cover a great extent of country. The best known of these ridges are the Jebel-Makhul on the banks of the Tigris, between 35° 30′ and 35° N. lat.; the Sinjar Hills, south of Nisibin, north of 36° N. lat., and between 41° and 42° E. long.; and the Abd-al-aziz Hills, near 36° 30′ N. lat., and between 39° and 40° E. long.

The most fertile portion of this region is in the north-western corner, between the Abd-al-aziz Hills and the Euphrates; it is drained by the river Belik, which runs about a hundred miles, and falls into the Euphrates at Racca. This region comprehends the districts which are known by the names of Saruj and Harran. In Saruj alone it is stated that there are more than forty large villages, inhabited by agriculturists, and that in twenty of them rice is cultivated. The country is considered as the granary of Syria, and no part of the last-mentioned province can vie with it in fertility and agricultural productions. *Harran*, which lies to the east of Saruj, is stated to contain a large portion of alluvial land, and to be equally fertile.

The country between the caravan-road and the Sinjar Hills is nearly a level plain, which even at the end of the dry season is mostly covered with coarse grass and prickly plants. In some places there are tracts of marshy ground, with long reeds, and interspersed with many large pools of sweet water; at a few places the soft soil is impregnated with salt. There are in this part many Tells or mounds of conical shape from 80 to 150 feet in height;

they appear to be artificial, and some of them mark the sites of ancient towns. The portion of this tract which is under cultivation is small.

The *Sinjar Hills* run east and west with a slight inclination to the south. They extend in length about 50 miles, and in breadth from 7 to 9 miles. The highest part of the hills is near the eastern extremity, where they rise about 1500 feet above the plain. This is an agricultural district. Considerable quantities of wheat, barley, and cotton are raised in the lower and more level parts, and the sides of the hills are covered with plantations of fig-trees and vines, which yield articles of export. A portion of the hills is covered with oak-trees, the acorns of which afford a plentiful supply of food to the numerous wild boars that frequent the hills. The number of the inhabitants, who are Yezidis, is stated to exceed 6000.

The plain between the Sinjar Hills and the Tigris has an undulating surface, and is for the most part barren, and covered with coarse scanty grass and thorny shrubs; there are large tracts of barren marshy soil, strongly impregnated with saline matter. The most common vegetable production is an oat-grass, which at many places covers tracts of several miles in extent to the exclusion of all other plants except a few flowers. Cultivation is only carried on in some of the beds of temporary watercourses, and between some low ridges of rocks, where wheat and barley are cultivated. Some tracts are covered with wormwood. In the vicinity of the Tigris the cultivated tracts are more extensive. This river flows here in a valley from 8 to 10 miles wide: the projecting headlands of the higher country form large embayments, which have a fertile alluvial soil, overgrown in their natural state with grass and small tamarisks, but where cultivated giving abundant crops of grain or rice. In proceeding from Mosul southward the cultivated tracts decrease in number, as the agricultural inhabitants are too much exposed to the predatory incursions of the

Shammar Arabs, who are in possession of the uncultivated interior of this part of Mesopotamia.

The Jebel-Makhul extends about 40 miles along the Tigris, and at a very short distance from the banks. It must be considered as the continuation of Jebel-Hamri, which at near 35° comes close to the left bank of the Tigris from the south-east. The Jebel-Makhul may rise about 600 feet above the level of this river: it consists mostly of two ridges, and is composed of transparent gypsum. In its present state it is a waste. At its western base is a large tract of country with a sandy soil, which contains a great number of bitter wells that are frequently visited by the nomadic tribes of the Arabs. The banks of the Tigris between Jebel-Makhul and the town of Tekrit are uninhabited on account of the neighbourhood of these tribes. Between Tekrit and the Median Wall the alluvial tract on the banks of the Tigris grows much wider, and appears to have been formerly a well-cultivated country, which was irrigated from a large canal that still exists under the name of Ishaki, and extends from the town of Tekrit to Baghdad; a great number of smaller canals for irrigation are connected with it. But at present the canal rarely contains water, as the whole work has gone to decay from want of attention; and this tract, which has an exceedingly fertile soil, is without inhabitants, and almost without cultivation, excepting a few isolated spots.

The country contiguous to the banks of the Euphrates is much better cultivated than that which skirts the Tigris. Between Bir-el-Jik and Balis the Euphrates runs in a narrow bed between very high rocks; there is no bottom along the banks of the river, and the adjacent country is sterile and uncultivated. But between Balis and Racca the high grounds present themselves as low and rounded hills, and they are from one to six miles distant from the banks of the river. The bottom in these parts is an alluvium. On the banks of the river

are tamarisk-bushes. A great part of the low plain is occupied by swamps, and the more elevated tracts between the swamps are either overgrown with tamarisk-bushes or used as pasture-ground. There is hardly any cultivation. In these parts the bed of the river is wider, and there are several islands in it. A few date-trees are planted.

At the mouth of the Khabur are some extensive woods, composed of high trees, especially tamarisks and poplars. Lower down the low and level flats increase in extent, and here also cultivation is much more attended to; but still by far the greater part of the bottom is swampy or only used as pasture. The number of islands increases as we proceed further south; they are partly bare and partly well wooded with tamarisks. Before reaching Annah the cultivation begins to be more general. Around this place a large tract is well cultivated; corn, cotton, French beans, and sesamum are raised to a great extent; the plantations of dates are extensive, and the numerous orchards yield oranges, lemons, pomegranates, figs, and olives. The olive-tree is not met with farther south; but other trees and the operations of agriculture are greatly attended to in the bottom of the Euphrates as far down as Hit. The banks of the river present a continual plantation of date-trees; and between them and the low rounded gently-sloping hills at the back the bottom is, with the exception of some swampy ground, in a high state of cultivation and full of villages. The high fertility of this tract is mainly to be ascribed to the system of irrigation which has been introduced. A great number of canals traverse the river bottom in its width, extending from 200 to 2000 yards from the banks, and the water, raised by machines, is distributed over the adjacent lands. The numerous islands which occur in this part of the course of the Euphrates are mostly cultivated, and on some of them towns are built.

Opposite the town of Hit the bottom is only a mile

wide, and nearly without vegetation, as the surface is mostly composed of gravel, intermixed with flint and pieces of chalk. There are only a few date-trees, poplars, and tamarisks; and at a few places are isolated fields of wheat, barley, or sesamum. Below this place the high grounds disappear entirely, and the whole country is very little elevated above the level of the river. The soil of this tract is extremely soft, and as the banks of the Euphrates are very low, it is annually subject to inundations, which leave behind them large pools and lagunes, the water of which is generally salt. The whole tract is in possession of nomadic tribes, who find here during the dry season abundant pasture for their buffaloes and horses. The number of islands in the river decreases, and they are no longer cultivable; their soft soil consisting of sand and mud.

Circesium (*Kerkesiah*), at the union of the Khabur with the Euphrates, was a very ancient town: it is called Carchemish in the Old Testament. It was the most advanced fort held by the Romans in this direction, and was strongly fortified by Diocletian. The Khabur is the Kebar of the Old Testament.

The largest towns on the Euphrates are the following:—*Annah* (the ancient Anatho), which is partly built on the western bank, and partly on an island of the Euphrates, contains 1800 houses, and is considered the capital of the Arab tribes inhabiting the country west of the river. Farther down lies *Hedisah*, on an island in the river, in the midst of date plantations, and containing more than 400 houses. *El-Uz* is also a considerable place, and like Annah partly built on an island. *Jibbah*, another town built on an island, contains 500 houses, and is a thriving place. *Hit* (the Is of Herodotus) contains bitumen springs, which are mentioned by Herodotus (i. 179). It is built round a hill, and has good houses of stone. In the vicinity there is very little cultivation, and the inhabitants derive their subsistence from making

salt, preparing bitumen, manufacturing woollen stuffs, and building boats. The number of bitumen springs in the neighbourhood of this place is very great, and the produce of a single spring is sufficient to meet the demand, though it is used in these parts as fuel. A great number of river-boats of different sizes and forms are made here. They consist of wicker-work, made of branches from an inch and a half to two inches in thickness. The interstices are filled up with bark or straw, and then the whole is caulked with bitumen. In such boats the bitumen, salt, and prepared lime are taken to Hillah, Bassora, and Baghdad.

THE PLAIN OF BABYLONIA.

The plain of Babylonia, or Irak Arabi, extends from the Median Wall (34° N. lat.) to the confluence of the Euphrates and Tigris at Kornah (31° N. lat.), and between 44° and 47° E. long. In length it does not much exceed 200 miles, and in breadth it varies considerably. Between Felujah and Baghdad it is not more than 40 miles wide, but lower down it widens to 100 miles This gives an area of about 16,000 square miles.

The banks of the Euphrates, from the place where the Sakláwiyeh Canal (the most northern of the canals from the Euphrates to the Tigris) branches off, to the ruins of Babylon and the town of Hillah, are of moderate height. The country adjacent to them is of indifferent fertility, and is mostly overgrown with grass, thistles, and mimosas. Cultivation is limited to a few spots, and as the pasture-grounds are also indifferent, the number of cattle, sheep, and goats is not great. It appears to be little inhabited, and only from time to time a grove of date-trees is seen. Below Hillah the country improves greatly; a large portion of it is under cultivation, and the plantations of dates are more numerous. It is a populous country: between Hillah and Diwaniyeh there are large villages.

A short distance below Diwaniyeh begin the marshes

of the Euphrates, which lower down are called the marshes of Lemlun or Lamlun. They extend from Diwaniyeh to El Karayin, a distance of upwards of 80 miles in a straight line, and they vary in width from 6 to 20 miles. This tract is the most productive and most populous on the banks of the Euphrates, and is inhabited by an Arab tribe called the Kasahel, who are estimated at half a million, which however is probably an exaggeration. The river runs between low banks, from which the country on both sides rises imperceptibly towards the interior, where it extends in level flats, between which are many extensive depressions which are swampy all the year round. The soil of this tract consists of a firm tenacious clay of a dark-blue colour, in which numerous shells are imbedded. The soil is very fertile when irrigated, and the means of irrigation are abundant. The Euphrates divides into numerous branches, so as to convert a large tract of the marshes into islands. The marshes are also traversed by two large canals, one on each side of the river. That on the Mesopotamian side is called the canal of Yusuf. It begins about half an hour above Diwaniyeh and terminates at El Karayin. The canal on the Arabian side is called the canal of Old Lamlun. It branches off from the Euphrates about 19 miles below Diwaniyeh, and rejoins it a short distance above the mouth of the Yusuf Canal. The two canals are connected with the Euphrates by numerous other canals of smaller dimensions, and other canals again carry the means of irrigation to those parts of the marshes which are more distant from the river. Great quantities of rice are grown in this marshy region; buffaloes abound; plantations of dates cover the banks of all the canals. There are also a few plantations of fig-trees. During the inundations the whole surface of these marshes is under water, with the exception of those places which are inclosed by embankments, and some more elevated tracts on which the villages are built. The villages also are frequently inundated, and when this happens the

inhabitants convert the roofs of their reed-built huts into boats, or place their families on buffaloes, and in this way reach a more elevated spot. As it is very difficult to enter their country with any force, they are nearly independent. The Euphrates in their country contracts very much in width, so as to be at some places not 200 feet across, and the Kasahel Arabs levy a very arbitrary toll on all the river boats which navigate between the lower and middle course of the river.

The marshy swamps terminate at El Karayin, and with them the large canals for irrigation; further downward only short narrow cuts are met with, which serve to irrigate the tracts adjacent to the banks of the river, and do not advance far inland. The banks are much more elevated, though not high, and in most places overgrown with bushes. This country inhabited by the Montefik Arabs, exhibits a mixture of cultivation and pastoral occupation. As the country is rather fertile, it is well inhabited, but not so populous as the marshes of Lamlun. The date plantations are as numerous and extensive as at any place higher up the river, but less care is bestowed upon them and on the cultivation of rice and wheat. Those inhabitants who still adhere to a nomadic life have large herds and flocks of horses, camels, buffaloes, sheep, and goats. The tract of ground between the mouth of the two canals Shat-el-Kar and Shat-el-Hiyeh, is swampy and well wooded, but little inhabited. Below the last-mentioned water-course the country rather improves; the banks of the river present almost a continuous forest of date-trees, between which the villages and hamlets are so numerous that they almost touch one another; on approaching the place where the two rivers unite, the banks of the rivers sink lower, and large tracts are only swamps overgrown with reeds, but in many places extensive fields still occur, on which wheat, rice, and barley are grown. The uncultivated grounds are used as pastures for the numerous herds of buffaloes. From 10 to 12 miles from the confluence of the rivers, the waters of the Tigris are

so abundant that the country is converted into a swamp, which during part of the year is covered with water many feet deep, and in the dry season it is cut up by numerous watercourses. From neglect of the embankments the marshes are greatly on the increase in Lower Mesopotamia.

The Euphrates fertilises the low country which extends on both of its banks below the town of Diwaniyeh. The detritus brought down by the river is formed by the abrasion of chalk, lime, and gypsum, which form a rather hard clay, not fertile itself, but becoming so when irrigated. The water in the Euphrates is lowest from the middle of November to the end of the year. It then begins to rise slowly, and continues to rise to the middle of January, in consequence of the great rains in Central Armenia at the beginning of winter. No difference in the level of the water is observed between the middle of January and the vernal equinox, when the great rise begins (consequent on the melting of the snow on the Armenian highlands), and continues to the end of May. It is then found that opposite the town of Annah it is from 11 to 12 feet above the lowest level, and farther down to the marshes of Lamlun from 15 to 18 feet. Were this great volume of water permitted to rush down on the low country, it would entirely submerge it, and convert it into an immense swamp. To prevent this the great canals of Babylonia were made, as they all occur above Hillah, or the place where the Euphrates enters the low country. The canals carried the superabundant water into the Tigris, and also gave to the adjacent country the means of irrigation. They appear still in some small degree to serve these purposes, but for the most part they are out of repair; all of them, even the Sakláwiyeh, are either dry or nearly so during three or four months. As these canals at present are not kept in good order, they cannot carry away the great volume of water, and a larger quantity descends to the low country, destroys the embankments, and converts a great part of the marshes of Lamlun and

of the low country farther down into swamps. From the end of May till November the waters of the Euphrates are continually but slowly on the decrease.

The Tigris also inundates the adjacent countries; but its inundations are more destructive than useful, on account of the great irregularity with which the inundations occur, and their difference in different years. This irregularity in the inundations of the Tigris is chiefly to be ascribed to the numerous large rivers which originate in the mountains of Kurdistan, and join the Tigris in its middle course; while the Euphrates, after the junction of its two principal branches, the Kara-su and Murad, is not joined by any river of consequence. The affluents of the Tigris rise in the mountains of Kurdistan, which for many months being covered with deep snow, an immense volume of water is brought down when the snow melts. The Zab Ala, or Greater Zab, at that time brings down a volume superior to that of the Tigris above the point of union. The other affluents, the Zab Asfal, or Lesser Zab, the Adhem, and the Diyalah, are also large rivers. The Tigris begins to rise in November, owing to the great rains which then fall in its upper basin. It rises and falls at intervals until the supply of water from the mountainous countries is stopped by the frost. In the middle of March begins the great rise, which continues to the end of May. After that period its waters alternately rise and fall during June, when they begin to decrease quickly, owing to the great rapidity of the current. Between August and November the volume of water has decreased so much that only vessels drawing four feet can navigate the river, and even such vessels encounter great difficulties. The Tigris and its great affluents flow in beds which consist of hard rocks, and a small quantity of detritus is brought down by them. It does not raise its bed by a deposit, but on the contrary, scours it out deeper. This is probably the reason why the canals for irrigation are at present without water during the greater part of the year. Even the Shat

Eidha, an ancient bed of the Tigris in the plain of Baghdad, has very little water in it.

The country along the banks of the Tigris, from the northern extremity of the Median Wall to its confluence with the Euphrates, is nearly a desert, except in the immediate neighbourhood of Baghdad, which is not supplied with provisions from the lands in its vicinity, but from the country which lies farther north. Baghdad is indeed surrounded with extensive gardens and some fields, but they extends only a few miles from the walls, and are surrounded by an uncultivated country. North of the town the plain is traversed by the great canal called the Ishahi, which extends from the neighbourhood of Tekrit to the Sakláwiyeh canal, but is without water. There are also many other canals of smaller dimensions in the same state. The remainder of this tract is pasture-ground for the herds of the nomadic tribes during the summer. South of Baghdad there is still less cultivation. The country is quite flat, and in most parts a grassy prairie, well watered ; in others, covered with extensive swamps. A few small cultivated spots appear at great intervals. Herds of buffaloes, however, and the black tents of the nomadic Arabs, are common. There are hardly two or three villages which have a permanent population. As we approach the confluence of the Tigris and Euphrates, nothing is seen but stagnant water, swamps, and morasses, in which single families have settled, who live on the milk of their buffaloes and the little rice that they can raise.

Numerous high mounds are seen in several parts of Babylonia and of the great plain of Mesopotamia, marking the sites of ancient cities.

Hillah is a fortified place with about 25,000 inhabitants, Arabs, Persians, Turks, Jews, Armenians, and Indians, in the midst of a number of canals, which are partly filled up. It carries on a considerable commerce with all the towns on the Euphrates, mostly in river-barges of 50 to 80 tons. The imports consist especially of rice, dates,

fish, oil, coffee, cotton-stuffs, and Indian goods, part of which are re-exported to Hit and Annah.

Dewaniyeh, lower down, a considerable place, with 1500 houses, is inclosed by a wall. Numerous river-barges are employed in carrying the produce of the rich country in its vicinity to other places.

Suk-el-Sheyukh, the capital of the Montefik Arabs, contains from 6000 to 7000 families, whose habitations are dispersed among the large plantations of dates which cover the country. It is the principal if not the only market which is visited by the nomadic tribes of Nejd in Arabia. They bring to this place cattle, horses, wool, and gum; and take in return lead, fire-arms, ores of different kinds, and culinary utensils. From this place the Indian Government obtain horses.

SYRIA.

THE name Syria occurs in the Greek writers; the Asiatics call the country Beled-es-sham, or "country on the left." The Mohammedans of Mecca direct their face to the rising sun when they pray, and then Syria, which they call Beled-el-sham ("country on the left") is to their left hand, and Beled-el-Yemen is on the right. The boundary of Syria towards the north is formed by the Amanus Mountains, which divide it from Asia Minor; towards the west by the Mediterranean Sea. The boundary between Syria and Egypt begins on the shores of the Mediterranean, southwest of the town of Gaza, and thence runs in an irregular line eastward across the desert, until it meets the Wady Arabah, which it crosses at the base of a high mountain, called Tor Hęsma, about eight hours' journey from the head of the Gulf of Akabah. From this summit eastward Syria borders on the desert of Arabia, and in these parts the boundary is undefined, except by part of the Haj road from Damascus to Mecca. North of 32° 5′ N. lat., Syria extends eastward to the desert, and includes the plain and mountain region of the Haouran, which extends to 37° E. long., and perhaps somewhat farther east. From the parallel of Damascus the boundary is considered to run north-east, passing about 20 miles east of Palmyra, and striking the Euphrates about 30 miles above Rakka. From this point the eastern boundary of Syria is formed by the Euphrates, which separates it from Mesopotamia. A rough estimate gives to Syria an area of about 70,000 square miles. The population is supposed to exceed a million and a half.

The situation of Syria is peculiar. It forms the greater part of an isthmus which separates a sea of water from a sea of sand. On the west the Mediterranean extends over more than 2000 miles. On the east is the desert of Syria and Arabia, which extends about 600 miles to the Persian Gulf and an inlet of the Indian Ocean. To the south of the isthmus lies the Red Sea, whose two great inlets, the gulfs of Suez and Akabah, penetrate deeply into the land.

The form of the surface is no less peculiar. The central part is furrowed by a longitudinal depression, or wide valley, which extends from the Gulf of Akabah, to the base of the Alma Dagh, where it terminates with the Lake of Bohhaire (36° 45′ N. lat.). This long valley, which extends over more than seven degrees of latitude, is divided in the middle (between 33° 15′ and 33° 25′ N. lat.) into two valleys by a high narrow ridge of mountains, the Jebel Arbel. The southern valley is traversed by the river Jordan on the greater part of its extent, and is in parts considerably below the surface of the sea. In its most elevated part, near the town of Baalbek, it attains an elevation at which in Europe corn can seldom be grown. The countries on each side of these valleys extend in some parts in elevated table-land, in other places sink down into large plains, and again rise into mountains, the summits of some of which are always covered with snow. The changes which the surface and its productive powers undergo in Syria are almost innumerable.

SOUTHERN SYRIA.

Southern Syria extends from the southern boundary of the country to the Bahr-el-Huleh, or Lake Merom, the ancient Semechonitis, and comprehends the southern valley, and the countries contiguous to it on the west and east.

The Southern Valley extends from the most northern point of the Gulf of Akabah to the Bahr-el-Huleh more than 250 miles in a straight line, and is naturally divided

into three sections by two deep depressions, which are occupied by two large lakes—the Dead Sea and the Lake of Gennesareth, now called Bahr Tabarieh, from the town of Tabarieh on its western shore, which occupies the site of the ancient Tiberias. The southern part of the valley, between the Gulf of Akabah and the Dead Sea, is called Wady-el-Arabah; the central portion, between the Dead Sea and the Bahr Tabarieh, El-Ghor; and the northern, or that part of it which extends from the Bahr Tabarieh to the Bahr Houleh, is called Wady Seissaban.

The Wady Arabah extends from south to north in a straight line for about 110 miles. Many were formerly inclined to think that, at some remote period, it had served as the channel by which the Dead Sea had discharged its waters into the Bahr Akabah, but if the physical condition of the region remains unaltered, this can never have been the case, as the level of the Dead Sea is considerably lower than that of the Red Sea. The watershed between the two seas occurs somewhat north of 30° N. lat., and is about 500 feet above the sea-level. On each side of the Wady-el-Arabah the mountains rise to a great elevation. Near the watershed those on the west attain 2000 feet; and those on the east rise to 3000 feet. In approaching the Dead Sea they increase in height, or perhaps it may be more correct to say that the level of the valley here sinks much lower. The distance between the two mountain masses varies considerably. Near the two extremities they are only 8 or 10 miles apart, but towards the middle the valley is 20 miles wide. The surface of the valley presents considerable varieties. South of the watershed it is generally level, but has a considerable slope from east to west, so that near the western mountains it is very little above the sea-level, whilst along the eastern it may be from 200 to 300 feet higher. About three miles from the Bahr Akabah the soil is strongly impregnated with salt, but farther north sand prevails, and is intermixed with pieces of granite, porphyry, and greenstone. After

the rains the country produces some grasses, and supplies indifferent pasture for sheep, goats, and camels; but in several places low hills of moving sand occur, which are destitute of vegetation. North of the watershed there are some ridges of low hills running lengthwise through the valley, and dividing it into two valleys. In the western valley during the rains, there is a stream, called El-Jib, which at that season collects all the waters that descend from the eastern and western mountains, and carries them to the Dead Sea. A few acacia-trees, tamarisks, and a few mimosas and shrubs grow among these sand-hills. Water is found even in summer a few feet below the surface. In proceeding farther north, the Arabah does not appear to have any considerable descent towards the north, but it is longitudinally furrowed by a narrow valley, in the midst of which is the bed of the Jib. This narrow valley gradually sinks lower, so that at its northern termination it is 150 feet below the general level. Its width at the beginning is about one mile, but towards its termination hardly more than half a mile. The dry bed of the river, especially in the narrower part of the small valley, is overgrown with tamarisks, and in one or two places there are a few date-trees, but otherwise this tract is a desert. Near 31° N. lat. the general level of the Wady-el-Arabah descends abruptly about 150 feet, forming apparently a line of hills running east and west, and composed mostly of marl. All along the base of these hills there are springs of brackish water, which form a tract of marshy land towards the north. Between this salt-marsh and the Dead Sea extends the most desolate portion of the Arabah. No trace of vegetation, no living creature is met with. At the base of the western mountains is a low ridge (called the mountains of Usdum), in general about 150 feet high, which runs for about 10 miles parallel to the Wady Arabah and the southern portion of the Dead Sea, and which is one mass of solid rock-salt, covered with layers of soft limestone and marl,

through which the salt often breaks out, and appears on the sides in precipices 40 or 50 feet high, and several hundred feet long. From the base of this chain of rocks, which is called Usdum, there break out several rills of transparent water, which run to the Dead Sea, but the water is as salt as the saltest brine. The tract between them, the bed of the Jib and the Dead Sea, is a perfect level, and extremely barren; but that on the east of the Jib is traversed by some rivulets descending from the eastern mountains, which have fresh water, and impart to the soil a considerable degree of fertility, so that there are some tracts which are cultivated. That part of the Arabah which lies north of 31° N. lat. is called El-Ghor, the lowest part of which is occupied by the Dead Sea. The region round this sea is intensely hot and very unhealthy in summer, where also it is barren and desolate in the extreme. In winter and early spring the shores of the Dead Sea present in parts considerable verdure.

That portion of the *Ghor* which lies between the Dead Sea and the Lake of Tabarieh extends about 65 miles in a straight line. This valley is below the level of the Red Sea. The width of the valley is about 6 miles; but towards the Dead Sea it grows much wider. It is traversed by the river Jordan. The mountains which inclose the valley on the east are steep and high: they are also high and steep on the western side for nearly half the length of the valley, beginning from the south; but farther north they sometimes sink down to low hills, and continue so for several miles. The river flows in a bottom about half a mile wide, and at least 40 feet below the general level of the Ghaur. This bottom is overgrown with high trees, and exhibits a luxuriant vegetation of plants and grasses, which present a striking contrast with the sandy and bare slopes which border it on both sides. In winter, the river inundates the bottom, but never rises to the upper plain. In the well-watered parts of the upper plain, there is a luxuriant growth of

herbage and wild grass, but the greater part of the ground is a parched desert. The most important articles of cultivation are wheat, barley, and dhurra. On the banks of the river there are willows, poplars, and tamarisks, and on the higher ground plantations of vines, pomegranates, &c. South of the ruined village of Richa (Jericho), and as far as the Dead Sea, the valley is nearly level, and the soil consists of clay impregnated with salt.

The Bahr Tabarieh, anciently called the Sea of Tiberias and of Gennesareth, is surrounded with steep and lofty mountains, except on the south, and along the western shore, from the town of Tabarieh northward, where an undulating plain, with a width of a mile or more, intervenes between the mountains and the lake. A considerable portion of this plain is cultivated by means of irrigation, and produces wheat, barley, dhurra, tobacco, grapes, melons, and several kinds of vegetables. The heat in summer is excessive. Melons ripen four weeks sooner than at Damascus. Dates are also grown here. The water of the lake is slightly brackish, and some of the rivulets which descend from the western mountains are salt. There are also hot-springs.

The Wady Seissaban extends from the Bahr Tabarieh to the Bahr Houleh, about 15 miles in a straight line. About one-half of its extent is below the sea-level, as the bridge called Beni-Yakoub is 350 feet above the sea, whilst the Lake of Tabarieh is 572 feet below it. The higher grounds of the valley of the Jordan, which is here about two miles wide, are partly cultivated; and on the greater part of the cultivated tracts different kinds of vegetables are grown, especially cucumbers and gourds, which ripen three weeks sooner than at Damascus, where the produce finds a ready sale. There are many zakkum-bushes, and the thorny rhamnus (*Spina Christi*), in the lower part of the valley. The Bahr Houleh, the Merom of the Old Testament, is not large, and its extent varies according to the seasons. The low country which sur-

rounds it to some extent is only inhabited on the eastern border, where the banks are overgrown with reeds and papyrus plants. The western and south-western banks are covered with a saline crust.

The Desert called El-Tyh-Beni-Israël (the Wandering of the Children of Israel) belongs partly to Syria and partly to Egypt, as the boundary-line between these two countries lies across it. It extends on the west of the Wady Arabah, and reaches southward to the Jeb-el-Tyh (29° 10′ N. lat.), which is connected with the extensive mountain-masses of Mount Sinaï. On the north the Tyh extends to the elevated table-land of Judæa. The Tyh is a desert and elevated table-land between 1000 and 2000 feet high. Along its eastern border its surface is much furrowed by deep watercourses, or wadys; in some parts lower depressions occur. In such places verdure is found in winter, and trees all the year round. Some of the deep valleys are of considerable extent, and are visited by the Beduins in winter with their herds, and in summer for the purpose of collecting gum-arabic, which is carried to Cairo. The higher parts of the table-land have a hard gravelly soil without vegetation; and in many places there are low irregular ridges of limestone hills.

The Table-land of Judæa joins the Tyh on the north, and extends from the parallel of the southern extremity of the Dead Sea to 32° 30′ N. lat., having on the east the Dead Sea and the Ghaur, and on the west the Plain of Falastin. The dividing-line between the last-mentioned plain and the table-land is near 35° E. long. The elevation of this table-land diminishes as we proceed farther north. North of 31° N. lat., the desert of the Tyh passes insensibly into a fertile country. The table-land there extends into an undulating plain, occasionally interrupted by low ridges of hills, which in summer are barren, but a part of the year are covered with grass and rich pasture. The lower parts preserve their verdure all

the year round. The plain is furrowed by valleys, which sink considerably below the general level, and are full of corn-fields, and vineyards and orchards that produce excellent grapes and figs. Corn-fields are also numerous on the higher grounds, but they are interrupted by large tracts of naked limestone rocks. This description applies to the interior of the table-land, as far north as Jerusalem, except that cultivation, and especially the plantations of olives, fig-trees, vines, pistachio-trees, apricots, pomegranates, oranges, and lemon-trees increase as we proceed farther north. The plains between the limestone rocks are covered with grass, which supplies pasture to sheep and goats, and herds of cattle, horses, asses, and camels. The mountains which form the eastern border of the table-land however, and extend along the Dead Sea, are a picture of desolation; they consist of yellow rocks without the least traces of vegetation. These mountains are distinguished from all other ranges of Syria by their summits, which do not present rounded masses, but rise in the form of pointed peaks and sharp edges, like the summits of the Alps. The barrenness which characterises this tract extends over the whole table-land in the parallel of Jerusalem; for in this part even the mountains that form the western border of the table-land are comparatively barren, but farther south they are fertile.

North of the parallel of Jerusalem the unevenness of the table-land is much greater, and the hills frequently rise to the height of mountains. Such are the mountains of Ephraim (north of 32° N. lat.), which are covered with woods and bushes. The depressions between the hills are of considerable extent. The slopes of the surrounding hills are gentle, and generally susceptible of cultivation, which is effected by making terraces on their declivities. At a few places there are valleys, some between the hills, and others formed by the action of the rivers in the more level country. The country is

much less naked than it is farther south; at several places forests consisting of high trees occur, and large tracts are covered with bushes. Cultivation is attended to in some degree, but large tracts lie waste. Fruit-trees are very common, and olive and fig-trees in some places cover several square miles in extent.

There are two rainy seasons on the table-land. The early rainy season sets in about the beginning of November, and lasts till the beginning of January. The late rainy season sets in at the beginning of April and somewhat later. The winter is rather cold, and frost in January and even February is not rare. Snow falls also, and sometimes very heavily. The summers are very hot. The thermometer sometimes rises to more than 100°, when the dry south-east and east winds, which blow from the Arabian and Syrian desert, have continued for several days.

On the west of the table-land of Judæa is the Plain of Falastin, as the ancient country of the Philistines is still called by the Beduins. It extends from the Tyh, to the base of Mount Carmel, 150 miles, but the width varies greatly. It is widest on the south, where it is more than 60 miles across, or rather 120 miles, as it extends to the Isthmus of Suez and to the delta of the Nile. In the parallel of Gaza it is about 25 miles wide or somewhat more, but to the northward it grows gradually narrower, and near Mount Carmel it is only a few miles wide. The most southern portion of the plain, between the delta of the Nile and the town of Gaza is a scorched sandy desert, and the sand blown from it into the sea is the principal reason why all the harbours of the Syrian coast as far north as Cape Carmel are choked up, and admit only small vessels. On the sea-coast the desert terminates near Gaza; but at the foot of the table-land of Judæa it extends about 10 miles farther north. The fertile portion of the plain of Falastin consists of a tract extending along the sea, with an average

width of 5 or 6 miles, as far north as 31° 40′ N. lat., where it widens so as to reach the table-land of Judæa. A tract with a sandy barren soil, and an entirely level surface, extends along the sea; but farther inland the country is undulating, or interspersed with low hills, between which there often occur cultivable spots which contain plantations of fruit-trees. The most fertile part of the plain extends on both sides of 32° N. lat., and is known by the name of the Plain of Ramleh, or Rama. The soil, consisting of a reddish sand intermixed with gravel, has a considerable degree of fertility where it can be irrigated, and produces good crops of grain, figs, olives, pomegranates, oranges, and lemons; the water-melons of this tract are of superior quality. There are many date-trees, sycamores, prickly pears, and aloes. The surface is interspersed with numerous small isolated hills; only a comparatively small portion is under cultivation, for want of water. The most northern part of the plain, or the narrow tract between the base of Mount Carmel and the Mediterranean, has a still better soil, and, where cultivated, produces wheat, barley, and cotton; but a great part of it has been converted into a swamp by the rivulets descending from Mount Carmel, and not finding their way into the sea owing to a series of sand-hills which have been thrown up along the shore by the south-west winds, which prevent their discharge. These swamps make rich pasturage for cattle.

Between Mount Carmel and the north-east corner of the table-land of Judæa, which comes close up to the Lake of Tabarieh, extends the plain of Ebn Omer, the ancient plain of Esdraelon. At its eastern extremity, near the mountains on the banks of the Lake of Tabarieh, it is only from 5 to 6 miles wide; and in the middle of it rises a round isolated summit, Jebel Tor, or Tabor. Farther west the plain widens, and between Nazara (Nazareth) and Jenin it is nearly 15 miles wide. Its extent from east to west probably does not exceed

15 miles. At the foot of Jebel Tor the surface is 466 feet above the sea; but it lowers rapidly to the westward, so that the greater part of it has a very moderate elevation above the sea-level. The Nahr-el-Mekana (the ancient Kishon), which traverses the plain, inundates the adjacent country after the heavy rains, and converts it into a swamp; but the swamp supplies good pasture for cattle, which in this plain are of a larger size than in any other part of Syria. Though the soil is of considerable fertility, only a small portion of this tract is inhabited. Corn and cotton are grown. Near the base of the hills and mountains surrounding the plain there are forests of evergreen oak, and in these parts there are also plantations of fruit-trees.

To the north of the plain of Ebn Omer extends the hilly region of Galilee, which is the most fertile part of southern Syria. The surface presents great varieties. The hills rise with gentle acclivities, and subside into plains several miles in extent, or are separated by wide valleys. The highest hills lie west and north-west of Nazara, which attain an elevation of from 1700 to 1800 feet above the sea. The town of Nazara is in a flat valley on the declivity of a hill, 876 feet above the sea-level. The whole region seems to be fit for cultivation, and a considerable portion of it is cultivated, though there are extensive tracts, especially in the smaller valleys, which are covered with forest-trees. Corn and cotton are extensively grown, and form considerable articles of internal commerce. The olive and fig-trees cover considerable tracts. Date-trees do not succeed.

The country west of the southern valley, between Safed and Sur, is a wide plain entered by a considerable ascent. Volcanic rocks are dispersed over it, and they increase in number towards the north-west, until they cover the whole surface of the ground. In the midst of this plain is a depression, which seems to have been the crater of a volcano; the lowest part of it is occupied by a lake.

The whole tract is entirely barren. From this high ground a descent leads into another basin-like plain of smaller extent which is cultivated and surrounded by bushy hills, and separated by a valley from a high undulating table-land, the soil of which is fertile and cultivated, and which is inclosed by swelling hills covered with shrubs and trees. So far the country is drained by water running to the Bahr-el-Houleh. A higher ground, interspersed with hills, but otherwise presenting an almost level tract on the top, forms the water-shed between the Bahr-el-Houleh and the Mediterranean. This tract is covered with dwarf oaks. The remainder of the country presents a succession of wooded hills and valleys, of which the cultivated portion is small, the whole being employed as pasture for cattle, which are so numerous, that butter is here used instead of oil, which is the case in no other part of Palestine. The hills are much more thickly wooded than in any other part of southern Syria west of the Great Valley, and fire-wood is a considerable article of export from Sur, to which it is brought from this country. In approaching Sur, an extensive undulating and well-cultivated region is passed, which is 1200 to 1500 feet above the sea-level. The slope from this high ground to the Mediterranean presents numerous ridges and valleys opening towards the sea, in which there are woods of prickly oak, maple, arbutus, and sumach, and extensive plantations of tobacco.

Along the Mediterranean extends the plain of Akka, which begins on the south at the base of Mount Carmel, and extends northward to Ras-el-Abiad, a distance of more than 20 miles. Between Mount Carmel and the town of Akka (Acre) it may be four or five miles wide, but farther north it rarely exceeds two miles in width. The southern and wider portion has a sandy soil in the vicinity of the sea, but farther east it is tolerably fertile and moderately cultivated. In the northern district there are some stony tracts, though in general it is stated that the country

possesses a considerable degree of fertility, but nearly the whole is uncultivated.

We pass to the east of the Southern valley. The most southern part of Syria is occupied by the extensive table-land of Petræa, which contains the mountain regions of Shera Belka, which inclose the Wady Arabah, the Dead Sea, and the Ghor on the east, and also an extensive plain lying east of these regions, and continuing in that direction to the desert of Arabia. The Syrian Hadji road runs along the eastern declivity of the mountain regions of Belka and Shera, having on the east a continuous chain of hills called El-Zoble: thus the road traverses a long valley, in which, wherever there is water, wheat and dhurra are cultivated, and extensive plantations of vines are found. The El-Zoble range terminates on the south at the source of the river Modjeb, and farther south the Hadji road lies within the plain; but dhurra and barley are grown only at a few places, though at several other places, especially at Maan, there are large plantations of pomegranates, apricots, and peaches; with the exception of these isolated spots along the road, the plain is only used as pasture-ground by the Beduins.

The mountain region of Shera extends from Jebel Hesma to the river Modjeb, from 29° 40′ to 31° 30′ N. lat., between the Hadji road on the east and the Wady-el-Arabah on the west, and occupies about 20 miles in width. When seen from the Wady-el-Arabah it has the appearance of a high range, at least 1000 feet higher than the mountains which inclose the Wady on the west, or about 3000 feet above the level of the valley: but when seen from the east, or the great plain, the mountains appear only as hills a few hundred feet elevated above the level of the plain, which shows that the great plain of Petræa is also at a considerable height above the sea. The mountain region of Shera comprehends three districts, of which the southern properly is called Shera, that in the centre Jebal, and the northern Kerek. The southern part of

this region consists of high ridges running generally from south-east to north-west, and separating deep, and in some instances wide, depressions from one another. The largest of these depressions is that called El-Ghœyer, which is upwards of 12 miles across at its eastern extremity, but it is narrower towards the west. The surface is rocky and uneven, and it is intersected by numerous glens and by three or four valleys, watered by rivulets, which unite and flow into the Arabah. This basin is noted for its excellent pasture. Villages are rather numerous in these depressions, and are mostly inhabited by Beduin tribes, who have applied themselves to agriculture. They cultivate wheat, barley, and dhurra, and their orchards contain apples, apricots, figs, pomegranates, olive and peach-trees, and numerous vines. Dried figs and grapes constitute the principal articles of export, together with soda. The rivers which traverse this region generally contain water even during the summer, but it is only in winter that the water reaches the valley of the Arabah. The climate of this mountain region is extremely agreeable. The air is pure; and though the heat is very great in summer, and increased by the reflection of the sun's rays from the rocky sides of the mountains, yet the temperature never becomes suffocating, owing to the refreshing breeze which generally prevails. The winter is very cold, deep snow falls, and the frost sometimes continues to the middle of March. This part of Syria would be much better cultivated and more populous if the inhabitants were not exposed to frequent incursions of the Beduins of the eastern plain.

The mountain region of the Belka, the ancient Bashan, still abounding in pastures and woodlands, extends from the river Modjeb on the south to that of Zerka on the north, or from 31° 30′ to 32° 20′ N. lat. Its width between the Dead Sea and the Ghor on the west, and the Hadji road on the east, rather exceeds 40 miles. The eastern district, or that contiguous to the Hadji road, is

little elevated above the road, and constitutes a barren sandy or rocky plain, most parts of which are interspersed with numerous low and isolated hills. Towards the north the plain has a chalky or clayey soil, and is covered with a rich verdure in winter. The western districts consist of a succession of ridges and deep valleys opening into the Dead Sea or the Ghor. The ridges occupy a much larger space than the valleys, and are generally level on the top. In a few places however high hills rise above them. The upper part of the ridges is bare of trees, and generally covered with flints. The narrow valleys between them are always wooded at the bottom, and sometimes on their declivities.

The northern district, or the country north of 32° N. lat., is an extensive mountain mass, whose highest part is in the middle of the tract, and is called Jebel Jelaad (Gilead). This higher ridge extends about ten miles from east to west, and near its most elevated summit, Jebel Osha, is what is called the tomb of the prophet Hosea, which is a place of pilgrimage for Turks and Christians. This mountainous country is almost entirely covered with high trees; oak, wild pistachio-trees, and many others not known in Europe. In scenery it resembles a European country. It has numerous springs and small rivers; some of the rivers run underground, as the mountains consist of limestone. On the southern declivity of this tract, and in the vicinity of the town of Szalt, are the only tracts in the Belka which are under regular cultivation, though some other places are occasionally sown with dhurra by the wandering Beduins. The numerous and extensive ruins show that cultivation was formerly carried on here to a great extent, and probably has been discontinued on account of the frequent incursions of the nomadic tribes who live to the east. At present the Belka is considered the best pasture-ground in Southern Syria; and the most powerful tribes of the Beduins are frequently at war with one another for the possession of

this region. Wheat, barley, and dhurra are cultivated. The vineyards are extensive near Szalt. Sumach and soda are collected. The climate of the Belka is as pleasant as that of the Shera, and the winters are as cold.

The Haouran is to the east of the Ghor. Along the valley it extends from 32° 21′ to 32° 45′ N. lat., but where it borders on the Syrian desert, which lies between it and the valley of the Euphrates, it advances as far north as 33° N. lat. It consists of two mountain-regions, the Jebel Ajelun on the west, and the Jebel Haouran on the east, and a plain which lies between the mountain-regions.

The Jebel Ajelun extends about 30 miles south and north, and about as many east and west. It is the most mountainous district of Southern Syria, and the best cultivated to the east of the southern valley. The highest part of the mountains is towards the south, north of the river Zerka (the ancient Jabbok) where the mountains of Moerad and of Jebel Ajelun rise much above the Jebel Jelaad of the Belka. The whole surface is a succession of mountain masses and valleys, and the valleys are rather large: the region is abundantly watered by streams, which either originate in this region or traverse it in its width, flowing from the plain of Haouran to the Jordan. Wheat and barley are extensively cultivated in all the lower grounds, and in some places on terraces made on the declivity of the mountains. There are numerous plantations of olives and vines. The orchards contain pomegranates, figs, lemons, oranges, and other fruit-trees. Every kind of vegetable is grown. The climate of the valleys is very hot in summer. The thermometer rises to 100° in the shade. The sides of the mountains are chiefly covered with wood, consisting of oak, wild pistachio, walnut-trees, and several kinds not found in Europe.

The Plain of the Haouran, which extends east of the Jebel Ajelun is a level, the northern part of which is frequently interrupted by isolated hills, which however are

less numerous towards the south, and at last disappear entirely. These southern districts have a very sandy soil, and are almost uninhabited. But the northern districts have a soil consisting of a fine black earth, which possesses a considerable degree of fertility, but is very little cultivated. A village is built at the foot or on the declivity of almost every hill, but very few of them are inhabited. It frequently happens that these habitations are taken possession of by some wandering peasant for a short time. The Haouran peasants do not fix themselves in one place: they wander from one village to another, and find commodious dwellings in the ancient deserted houses. They are chiefly induced to change by the exactions of the Beduin tribes, who are considered the true proprietors of the plain. During the winter the plain produces excellent pasture for the herds of the Beduins. There are no trees. The cold in December and January is severe.

The Jabel Haouran is much less extensive than the Jebel Ajelun. It extends from 32° 25′ to 33° N. lat., but no part probably is more than 12 miles across. It is surrounded by plains, which are lower than the base on which the mountains rise; though the cold of the winter proves that they are at a considerable elevation above the sea. The mountain region is covered with several ridges running in different directions. The highest part of the mountain-system is near 32° 40′ N. lat., where the Kelab Haouran, a summit in the form of a cone, rises considerably above the lower ridge on which it stands. It is wooded on the north and west, but bare on the east and south; and this observation applies to the whole mountain-region. In its present state only the northern and western base of this region are inhabited and cultivated, and cotton and tobacco are extensively grown. Wheat, barley, dhurra, and beans are cultivated. The wood with which the mountains are clothed is only stunted oak. In the mountains there are extensive pasture-grounds, even where there are no trees, and a

great number of uninhabited villages and towns occur, the houses of which are generally in a tolerable state of preservation. East of Jebel Haouran is the Syrian desert.

CENTRAL SYRIA.

Central Syria extends from 33° 10′ to 34° 40′ N. lat. Within its limits are Libanus and Antilibanus, and the southern and highest portion of the northern valley. To the east of the Antilibanus is the plain of Damascus.

Mount Libanus, called by the natives Jebel Libanan, constitutes a continuous range of mountains, which begins a little south of 33° 20′ N. lat., and, running to the east of north, terminates near 34° 40′ N. lat., with a ridge of hills called Jebel Shara. The northern portion of the range is called Jurd (that is Jebel) Baalbec, and the southern Jebel Sunin. As the higher part of the range is destitute of trees, it is considered that its average elevation above the sea must be at least 8000 feet. The highest part of it occurs between 34° 10′ and 34° 15′ N. lat., and is called Jebel Makmel. It rises to more than 12,000 feet above the sea-level, and is covered with snow all the year round. The highest part of the road which passes over the range to the east and north of the Jebel Makmel, is 7590 feet above the sea. This range of mountains, with its declivities extending eastward and westward, varies between 12 and 18 miles in width in a straight line, of which extent less than one-fourth lies on the east side of the highest crest, so that on this side the declivity is much steeper than on the west, where its offsets generally approach the shores of the Mediterranean and in a few places, as north of Beyrut and at Ras-el-Shakka, come close to the water's edge. On both sides of the range a terrace occurs somewhat about the middle of its height, which divides the Upper and Lower Libanus. The Upper Libanus usually presents only steep declivities, either entirely bare, or clothed with a scanty vegetation, but a few spots have a fine

growth of grass, and in summer they are used as pasture-ground by the mountaineer Arabs who visit this place. The level ground which separates the Upper Libanus from the Lower is also generally without trees, but always covered with shrubs and grass. It contains small groves of cedars, not far from the northern base of Jebel Makmel, more than 6000 feet above the sea-level.

The Lower Libanus, to the west of the range, is one of the most interesting countries in Asia. That part of it which extends from Beyrut (33° 50′ N. lat.) to Tarabloos (34° 25′ N. lat.) is called Kesrawan, the most southern part of which is entirely in possession of the Maronites. The Kesrawan is very well watered. The water-courses, however, he in very narrow and deep valleys, the sides of which rise with a steep ascent several hundred feet above the narrow level at the bottom. As these water-courses are very numerous, the ridges between the valleys are very narrow, and there is no level on their tops. The valleys, even where widest, never exceed a mile in breadth; but every cultivable spot is turned to account. The inhabitants build terraces on the declivities of the mountains to obtain a space of level ground, and to prevent the earth from being swept down by the winter rains, and at the same time to retain the water requisite for the irrigation of their crops. On these terraces and in the level spots of the valleys there are orchards, mulberry-plantations, vineyards, and fields of dhurra and other grain. The silk which is collected in these places is not inferior to any in Europe, and constitutes the principal article of commerce. The lower ranges and hills with which the offsets of the Libanus terminate, are covered with plantations of olive-trees, but the narrow plain along the shores of the sea is generally not cultivated, except at the very base of the hills. There are, however, some small groves of date-trees. The higher parts of the ridges which separate the valleys are generally wooded with fir-trees.

The eastern declivity of Mount Libanus differs greatly from the western. It is furrowed by ravines, in which the water descends only during the rains. This part of the Lower Libanus is covered with low oak-trees. On the narrow level plain which divides the Lower Libanus from the higher part of the range are some cultivated spots; other spots are planted with walnut-trees. Higher up the mountain is very steep, and vegetation scanty.

The Northern Valley, as far as it is included within Central Syria, extends along the eastern base of Mount Libanus in all its extent, or about 90 miles in length. South of Baalbec it is only from 2 to 3 miles wide. At Baalbec it is about 5 miles wide, and in the parallel of the northern extremity of the Antilibanus (near 34° 25′ N. lat.) more than 10 miles. It is naturally divided into two sections, as the waters of the southern districts run off to the south by the river Litany (the ancient Leontes), and the northern portion is drained by the Azy, or Orontes. The two river-basins, however, are not contiguous, for near 34° N. lat., and chiefly north of that parallel, is a tract about 12 miles in length, the waters of which do not reach either of these rivers, but are lost in the plain. This tract is the most elevated part of the valley; the town of Baalbec, which is built towards the southern border of it, is 3808 feet above the sea-level. The southern part of the valley (called the Bekaa) is watered by the Litany river, which rises about 5 miles south-west of Baalbec, in a small lake. The river has water all the year round, being supplied by several copious rivulets which descend from the western declivity of the Antilibanus. Where the valley terminates on the south, near the castle of Kalaat-el-Shkif, the river turns west, and reaches the Mediterranean a few miles north of Sur (Tyrus). The Bekaa is well watered and famous for its fertility; not more than a sixth part of it is cultivated; the greater portion serves only as pasture-

ground for the Beduins and Turkmans, who pass the winter here and ascend in summer to the upper declivities of the Antilibanus. The northern and wider portion of the valley is called Belad Baalbec. The soil of this tract is not much inferor to that of the Bekaa, but the proportion of cultivated land to that which is only used as pasture, or not used at all, is still less than in the last-mentioned district. Only a few villages occur in the valley, which, as well as the Bekaa, is destitute of trees; but there are numerous villages at the base of the mountains whence small rivulets descend and supply the means of irrigating the corn-fields and orchards.

The Antilibanus, which stands to the east of the valley just noticed, extends much farther to the south than the Libanus. It is divided into two portions by a long and narrow depression which occurs near 33° 40′ N. lat., and is called El-Bogaz (the George). That portion of the range which lies north of the Bogaz, descends towards Belad Baalbec and the Bekaa with a very steep declivity, which is barren and destitute of wood except at a few places where rivulets descend in narrow glens: these glens are overgrown with trees. This part of the range has no great elevation. The highest point of the road which crosses the Bogaz from Beyrut is only 3148 feet above the sea-level, and less than 1500 feet above the adjacent plain of the Bekaa. It does not appear that any part of the Northern Antilibanus exceeds 6000 feet in elevation.

The Southern Antilibanus attains a much greater elevation. At the distance of about 12 miles south of the Bogaz an extensive mountain-mass, called Jebel-es-Sheik, is always covered with snow. This mountain-mass and its declivities cover a space of 20 miles from east to west. From the western declivity branches off a narrow ridge, which, towards the north, is called Jebel Arbel; but its southern prolongation, called Jebel Safed, terminates on the south with the elevated mountains which lie to the

north of the town of Safed: its length is about 35 miles. South of the summit of the Jebel-es-Sheik lies an extensive mountain-tract, extending about 15 miles east and west, and as much to the south. It is mostly covered with thick wood, and only used as pasture-ground. From this mountain region a ridge runs southward, which is called Jebel Heish, and which terminates with a hill, called Tel-el-Faras, in the elevated plain of Jolan, about 5 miles south of 33° N. lat. The two ridges of the Jebel Safed and of the Jebel Heish inclose that part of the valley of the river Jordan which lies north of the Lake of Tabarieh, and is called Wady Seissaban. The road leading from Jerusalem to Damascus crosses the Jebel Heish about 12 miles north of the Tel-el-Faras, and at this place it is perhaps not more than 500 feet above its base: but the plain on which it stands is from 3000 to 3100 feet above the sea-level. The mountains are covered with forests of small oak.

The Plains of Damascus lie on the eastern side of the Antilibanus, and extend as far south as the Hauran. They form an intermediate terrace between the mountain region and the low Syrian desert, which is farther east. At their southern extremity these plains extend to a distance of 70 miles from the range; but farther north their width is less. In the parallel of Damascus they are only 30 miles wide. North of Damascus the boundary diverges towards the east; but in these parts it cannot exactly be determined, as the desert sometimes approaches near the caravan road leading from Damascus to Aleppo, but generally remains at a considerable distance from it. It appears that many cultivable though uncultivated tracts occur as far east as Tadmor, which is about 75 miles from the range of the Antilibanus.

The lowest part of these plains is about 12 or 15 miles east of Damascus, where an extensive lake, or rather swamp, occurs, called Bahr-el-Merdj, in which several rivers are lost that descend from the eastern declivity of

the Antilibanus, and from the Jebel Haouran, from north, west, and south. The most remarkable of these rivers is the Barrada, which brings down the waters collected on the eastern declivity of the Antilibanus between 33° 15′ and 33° 50′ N. lat. These waters unite at some distance from the foot of the range, in a wide depression of the plains, called El-Gutha, in which the town of Damascus is built, and which is the most productive spot in Syria, if not on the globe. Gardens and orchards, yielding all the fruits and vegetables of the most favoured parts of southern Europe, surround Damascus to the distance of several miles, the area which they cover being estimated at 130 or 150 square miles. The cultivated fields surrounding this forest of fruit-trees extend to a further distance of some miles. The astonishing fertility of this tract is produced by the abundance of water, as the country is traversed by seven branches of the river Barrada, which always yield a copious supply of water for irrigation. As the town of Damascus is 2337 feet above the level of the sea, the climate is far from being so temperate in winter as is commonly supposed.

The most western portion of the plain between the southern extremity of the Jebel Heish and the Jebel Ajelun, and from the Lake of Tabarieh eastward to the Hadji road, is called the Plain of Jalon. The ascent from the Lake of Tabarieh is very steep and long. The surface is uneven and undulating, and there are a few isolated hills. Several considerable tracts have their surface formed of rocks, which are commonly covered with a thin layer of earth, on which grass springs up after the rains, but which are quite bare at other times. Other districts have a fine soil, either black, grey, or red, and some produce rich crops. The greater part of them however is uncultivated and overgrown with a wild herb, on which cows and camels feed.

The plains extending east of the Hadji road, south of El-Gutha, are rather hilly in the northern districts, short

and low ridges running in different directions. These parts contain several stony tracts, and others which might be cultivated, if water was abundant. The greater part is at present only used as pasture-ground. The southern districts, or those which approach the northern extremity of the Jebel Haouran, contain two extensive rocky regions, called Es-Szaffa, on the east, and El-Ledja, on the west, which are divided from one another by a wide valley called El-Lowa. The Lowa is traversed by the river Lowa, which originates in the Jebel Haouran and falls into the Bahr-el-Merdj. On its banks is a plain of considerable extent, which is covered with the most luxuriant herbage, and was formerly well cultivated, as is proved by the ruins of numerous villages and towns in the valley. But at present it serves only as pasture-ground for the Beduins, who occasionally cultivate some spots with dhurra.

That part of the Plains of Damascus which lies north of the Gutha is traversed by the road from Damascus to Aleppo. The road passes over two low ridges, which appear to be connected with the Antilibanus. The country through which it passes is in a few places covered with sand, but in general it has a rich cultivable soil, though it is destitute of trees and even of shrubs. Villages and cultivated tracts occur only at great distances.

NORTHERN SYRIA.

Northern Syria, which lies north of 34° 40′ N. lat., differs in physical constitution from the more southern parts. A high mountain range runs along the Mediterranean. At the back of this is the northern portion of the Northern Valley, which is divided by a hilly tract, extending from south to north, from the Eastern Plains.

The Mountain Region of Northern Syria is divided into two portions by the lower course of the river Azy. The southern part, which comprehends about two-thirds of the whole, is known by the name of Jebel-el-Anzeyry, and the northern by that of Jebel Ahmar.

The Jebel-el-Anzeyry is divided from Libanus by a gap or depression, called El-Junie, which is about ten miles across nearly a dead level, swampy, and only used as pasture-ground by the Turkmans and Kurds. The Jebel-el-Anzeyry occupies with its branches the whole tract between the Mediterranean and the Northern Valley, and is in width about twenty miles or somewhat more, except towards the southern extremity where one of its offsets, Jebel Erbayn, branches off eastward, and terminates on the banks of the river Azy, near the town of Hamah. In this part the Jebel-el-Anzeyry is about forty-five miles wide. The highest part of the range lies in general close to the valley of the Azy, so that the space between it and the sea is filled up by numerous offsets, which sink down to low hills and inclose valleys of moderate extent. The principal chain terminates east of the town of Antakia, in the great bend of the Azy. Where it terminates it is connected with another chain of mountains, which rises a few miles north of the town of Latakia, and runs so close to the shores of the sea, that no road can be made along its western base. The declivities towards the sea are extremely precipitous and barren. It is the Mons Cassius of the ancients, and is now called Jebel Akrah. It attains an elevation of 5318 feet above the sea. The Jebel-el-Anzeyry nowhere exceeds 6000 feet above the sea-level. Its eastern declivity is generally very steep, and only covered with shrubs and low trees, but the western declivity is clothed with fine trees, and the wide valleys which lie between its offsets are cultivated or laid out in orchards and plantations of mulberry-trees.

Jebel Ahmar, or the northern portion of the mountain region, begins on the Mediterranean, occupying the space between Ras-el-Khanzir on the north, and Jebel Musa, the Mons Pierius of the ancients on the south. Near Ras-el-Khanzir the summit called Jebel Keserik attains 5550 feet above the sea-level. From this summit the range runs north-east, but by degrees turns more to the

north, so as to inclose the Gulf of Scanderoon on the east with a curved line. It joins the Alma Dagh about 10 miles north of 37° N. lat. Near 36° 30′ N. the road between Scanderoon and Antakia traverses it, and the most elevated pass is 4068 feet above the sea-level. This range never exceeds five miles in width. The mountains generally descend towards the Gulf of Scanderoon with a gentle declivity, and approach near its shores, except towards the north, where a level tract about two miles wide intervenes, which gradually increases to the breadth of seven miles. This wider part is fertile and cultivated, and it is diversified with orange and lemon groves. The remainder is almost entirely uncultivated, but full of ruins.

The northern portion of the Northern Valley begins at the termination of Mount Libanus (34° 40′ N. lat.) and Mount Antilibanus (34° 20′ N. lat.). North of these places a level country extends across the whole breadth of Syria, from the Mediterranean to the Euphrates. It is quite destitute of trees; and though a great part of it is fit for cultivation, the extent of the cultivated tracts is small, which is mainly owing to the want of water.

The Jebel-el-Anzeyry begins in 34° 40′ N. lat., and on the plain extending east of the river Azy a ridge of hills called Jebel-el-Aala rises near 35° N. lat. This last-mentioned ridge runs from south-east to north-west, and thus approaches the Jebel Erbayn, or eastern offset of the Jebel-el-Anzeyry, south of the town of Hamah, near 35° 5′ N. lat. From this point the river Azy runs for 12 miles in a narrow valley, which is inclosed by rugged mountains, but it widens in some parts, and in one of these plains the town of Hamah is built. At the northern extremity of this valley the eastern ridge sinks down to the level of the plain, but two or three miles farther north it rises again under the name of Jebel Shaehsabon, and here begins that fine valley which is called El-Ghab, and which is about thirty-five miles in length; its width

is about five miles, but it grows narrower towards the north. The river flows near the base of the Jebel-el-Anzeyry, where it forms numerous marshes. In winter it inundates the level ground, through which it flows and leaves many small lakes. The valley is watered also by numerous rivulets. The villages are pretty numerous, and mostly built at the base of the mountains: they are surrounded by fields on which dhurra and wheat are grown. The remainder is used as pasture-ground for cattle and buffaloes. Large herds of buffaloes are kept in the swampy part of the valley. The wider valley of the Ghab terminates at Jebel Shogher, and hence the Azy runs northward in a narrow valley, which contains very little land fit for agriculture; but the sides of the mountains are covered with plantations of fruit-trees: those of mulberry-trees and olive-trees are very extensive.

Where the Azy emerges from the valley, and, turning north-west and west, flows along the base of the Jebel-el-Anzeyry, an extensive plain opens to the north, the ancient plain of Antiochia, now called El-Umk, which stretches to the base of the Alma Dagh. It is about 35 miles long, with an average width of 15 miles. Towards the middle of the plain is a deep depression, which receives all the rivers that descend from the mountains surrounding it on the east, north, and west, and from an extensive lake, called El-Bohhaire, the ancient Lake of Antiochia. It is about 12 miles long and 6 miles wide, and noted for its eels, which form an article of commerce. The country surrounding the lake rises in very gentle slopes towards the base of the Alma Dagh. The northern part of the valley is cultivated, and produces wheat, barley, and several kinds of pulse. The Lake of Bohhaire discharges its waters into the Azy by the Kara-su, which runs through the southern and lower part of the plain, which for the greater part of the year is nearly a swamp. No part of it is cultivated, and it is only used as pasture-ground.

The Umk constitutes the most northern portion of the Northern Valley, which is connected with the Mediterranean by the valley in which the Azy reaches the sea by a south-west course. This last-mentioned valley is nearly 30 miles long, and from 4 to 6 miles wide between the Jebel-el-Anzeyry and the Jebel-el-Ahmar. The river runs near the base of the Jebel-el-Anzeyry, and on its northern banks is an undulating country, generally well cultivated. Much tobacco is grown, and the plantations of mulberry-trees are extensive: other fruit-trees also abound. The Azy, from its source, about 12 miles north-east of Baalbec, to its mouth runs above 200 miles. After having entered the plain north of the mountain ranges, it falls into a lake called Bahr-el-Kades, which is about 6 miles long and 2 miles wide. The river is not navigated, but it is said that it could be easily rendered navigable for barges to a distance of 27 miles above Antakia. Its mouth is obstructed by a bar, over which there is from three and a half to nine feet of water in winter.

The Hilly Region, which extends to the east of the valley of the Azy and of the El-Umk, from the town of Hamah to the base of the Alma Dagh, may occupy about 10 miles in width, south of 36° 10′ N. lat., but where it is contiguous to the El-Umk it is more than twice as wide. The southern portion has somewhat the form of a range, the limestone rocks rising to a considerable elevation, and inclosing valleys; but many of these hills are only covered with bushes, and the arable grounds are not extensive. Barley and dhurra are grown. Vines are much cultivated, and grapes and debs are sent to Aleppo. The northern portion of the Hilly Region is an undulating country on a large scale. The limestone soil absorbs all moisture, and there are no watercourses. The country however is rather fertile, and yields good crops of wheat and other grain, and cotton of excellent quality. On the hills there are plantations of fig-trees and olive-trees.

The Eastern Plains occupy about two-thirds of the

surface of Northern Syria, and extend from the Hilly Region to the banks of the Euphrates. They are divided into two parts by a ridge of low hills, the western part of which is called Jebel-el-Sis and the eastern Jebel-el-Has. This ridge is near 35° 50′ N. lat., and appears to extend from the hills north-west of Hamah to the vicinity of the Euphrates. The southern part of the plain contains in the west large tracts of good soil, which cannot be cultivated for want of water; towards the east it gradually passes into a desert, which is divided from the Euphrates by a wooded tract several miles wide, and called El-Zawl, or Gharabat.

The northern part of the plain is of a different description. It is traversed by three rivers, two of which rise on the southern declivity of Alma Dagh, and run southward. The river *Sajur* drains the north-eastern portion of the plain. It rises north of the town of Aïntab, brings down a great volume of water from the mountains, and falls into the Euphrates about 20 miles below Bir, after a course of 80 miles. The *Kowaik*, or *Koïk*, also called the River of Aleppo, rises in one of the great offsets of the Alma Dagh, and runs with numerous windings through the plain southward, until, in approaching the Jebel-el-Has, it is lost in swampy ground, called El-Matkh. The third river, called *Zeheb*, or *Duhab*, rises in a ridge of hills which run west and east, and terminate on the banks of the Euphrates south of the mouth of the Sajur. These hills compel the last-mentioned river to join the Euphrates. The Zeheb runs southward, and after a course of about 40 miles falls into a salt lake called El-Sabkh, which is surrounded by low rocky hills. The lake is about 6 miles long and 2 miles wide. After the rains it inundates the narrow strip of land which in summer lies between its banks and the rocks; and when the water has been evaporated by the heat of the summer this narrow strip is covered with pure salt, in some places two inches thick. This salt is collected in the month of August, and exten-

sively used over a great part of Syria. The surface of the plain is far from being level. Short ridges of low hills occur at several places, especially near Aleppo, the plain of that town being inclosed by such ridges on three sides. When the plain extends in a level, or in slight undulations, as is mostly the case, isolated hills, called "tells," which some consider to be artificial, are frequent. In their neighbourhood there are wells and villages. East and south of Aleppo the soil of the plain is very stony. West and south-west of Aleppo the soil is better, especially in the neighbourhood of the hilly range, where it yields abundant crops of wheat and other grain. To the north-west and north of Aleppo the soil is indeed stony, but the earth is deeper, and cultivation is rather extensive. The best part of the plain appears to be that which is contiguous to the road leading from Aleppo to Aïntab. These plains are about 1000 feet above the sea-level, except near the Euphrates. Between Aleppo and Aïntab the surface of the Kowaïk, at Toybeck, is 1263 feet above the Mediterranean; and that of the Sajur, farther east, 1363 feet. The Euphrates, below Bir, is only 628 feet above that sea.

In the plains the winter lasts from the 12th of December to the 20th of January. There is generally some slight frost; snow seldom rests more than one day on the ground. In February the vegetation is vigorous, and the trees are in blossom; but the spring soon passes, and at the end of May nearly all the smaller plants are dried up. From that time rarely a cloud passes over the clear sky, and the heat is very great. West winds are cool, east winds suffocating. The first rains occur about the middle of September, and are followed by settled and pleasant weather, which lasts from twenty to thirty days; but towards the end of November the later and more heavy rains set in, and continue to the beginning of the winter.

The Alma Dagh is the ancient Amanus. It lies along the boundary of Syria and Anatolia, and its

crest is considered as the boundary between these two countries. The range occupies in width about 30 miles, of which the larger portion belongs to Anatolia. The mountains are very precipitous, and can only be traversed by beasts of burden in a few places. The most frequented road runs from Aleppo due north to Aïntab, and thence over the Alma Dagh to Kaisariyeh and Angora. There are some mountain roads farther west, which are well wooded. Many thousand acres are covered with large cedars, and in other places there are firs and juniper trees.

NATURAL PRODUCTS, POPULATION, &c.

As already mentioned, they comprise wheat, barley, dhurra, spelt, some rice, lentils and other pulse, artichokes, melons, cucumbers, capsicum, potatoes. Among other products are—cotton, hemp, silk, madder, indigo, sesamum, castor-oil, tobacco, &c. Of fruits there are figs, olives, mulberries, grapes, almonds, apricots, peaches, pomegranates, oranges, lemons, dates, &c. Vineyards are numerous in the mountainous districts and on the table-land of Judæa. The wine of the Libanus is of excellent quality. Zakkum and storax are grown in gardens. The most remarkable trees that are partly cultivated and partly grow wild are —sycamore, carobs, Indian fig, mulberry, and pistachio-trees. The mountain forests, where there are any, consist of cedars, firs, and pines. On the table-lands grow dwarf-oaks, which produce the best galls known; there are also the azerol, the walnut, the arbutus, the laurel, the terebinth, and several kinds of junipers. A good deal of scammony and sumach is gathered about Mount Libanus.

The domestic animals comprise horses, cattle, asses, sheep, and goats. Few horses are kept by the agricultural population; but the wandering tribes, the Arabs, the Turkmans, and Kurds, pay great attention to the breed of horses. The Arabian horses are noted for beauty and speed. The number of cattle is comparatively small,

and, except in a few places, of small size. The asses and mules are of a large breed, and they serve as substitutes for horses in the transport of goods. Sheep and goats are very numerous. In Northern Syria that species is kept which has the large broad tail. Camels are found everywhere, even on Mount Libanus. Buffaloes are only found on the sea-coast between Beyrut and Tarablous, and in the Wady Ghab. Those which are kept on the sea-coast are large, and not inferior to those of Egypt.

Among wild animals, jackals, foxes, and hyænas are frequent in some parts of the desert mountains. There are bears on Mount Libanus and Antilibanus. Wolves are only found in the forests of Alma Dagh. Wild boars are very numerous in many parts. Deer are met with on the Alma Dagh and near Mount Tor, and in the desert parts are several kinds of antelopes. In the mountains of the Belka the bouquetin (*Capra ibex*) is said to be very numerous. Hares and porcupines abound, and the *Dipus jerboa* is common in the southern deserts. There are several varieties of eagles. Partridges and pigeons abound in many parts, especially on Mount Libanus. In the mountains east of the Southern Valley there are immense numbers of a bird called katta, which is considered to be the Tetrao Alkatta. Several kinds of fish and shell-fish are found in the Mediterranean, but not in large quantity; but a considerable fishery is carried on in an inland lake of the Ghab, where a fish, called black fish (*Macropteranotus niger*), is so abundant, that annually, between October and January, a great quantity is taken, cured, and sent to remote places. This fish is from five to eight feet long. Fish are also very abundant in the Bohhaire Lake. The tortoise occurs frequently on the table-land of Judæa, and turtles in the Barrada. None of the snakes are considered to be poisonous. Bees are very abundant on Mount Libanus whence wax and honey are exported. The rearing of silk-worms is carried on to a great extent on the mountainous tracts near the coast,

and silk constitutes the most important article of export from Syria. The locusts frequently lay waste the fields: the Arabs eat them, and salt them for food. There are no metals found in Syria except iron, which is worked in the Kesrawan in Mar Hanna, south-east of Beyrut, where also coal has been discovered. Burckhardt found iron and quicksilver at the western base of Jebel-es-Sheik. Salt is got from the lake called El-Sabkh, and also from the sea-water of the Mediterranean. In the Tyh-Beni-Israël, and at the southern extremity of the Dead Sea, there are mountains almost entirely composed of rock-salt. Bitumen, or asphaltum, is collected on the west shores of the Dead Sea. Tacitus ("Hist.," v. 6) speaks of asphaltum being collected on the Dead Sea. It constitutes an article of export. In the northern Ghor pieces of native sulphur are found at a small depth beneath the surface.

The population of Syria consists of agricultural and nomadic tribes. Nearly all the Fellahs, as the agricultural population of Syria is called, belong to one race, resembling in the structure of their body the Beduin Arabs, and speaking also the Arabic language. The Fellahs are divided, according to their religion, into Christians, Jews, and Mohammedans. The Jews are numerous in Southern Syria, west of the southern valley, but they are rarely found east of that valley, or in the other parts of the province. They are most numerous in the vicinity of the five holy cities—Jerusalem, Tabarieh, Safed, Nablous, and Khalil (Hebron). The Christians are found everywhere. Even in the Haouran the Christians constitute one-fourth of the agricultural population. They are either of the Greek Church or Roman Catholics. Among the Roman Catholics are included all religious denominations who acknowledge the authority of the Holy See:—the Latins, who use the Roman liturgy, and have a patriarch at Jerusalem, and numerous convents there and in different parts of the Holy Land; the

Melchites, or United Greeks, who have a patriarch at Damascus, and eight suffragan bishops; the Maronites, who are Catholics, live exclusively on the western declivity of Mount Libanus, in the Kesrawan, and are a very industrious people; the United Armenians, who have a patriarch at Bezumma in the Libanus, and a bishop in Aleppo; and the Syrians, or United Chaldeans, who have a patriarch at Aleppo. The Maronites, who number about 140,000, have a patriarch at Kanobin, in the Kesrawan, and seven suffragan bishops.

There are also three religious sects in Syria which are neither Christians nor Mohammedans—the Druses, Anzeyries or Ansairians, and the Ismaulies. The most powerful of them are the Druses, who number about 30,000; they pay tribute to the Turkish pashas, but otherwise are independent, and their chief may be considered as the master of a great part of Mount Libanus, with the adjacent districts of the Bekaa. The Anzeyries, or Ansairians, inhabit the mountain region which has received its name from them, and which lies between the lower course of the Azy and the Mediterranean. They are likewise an industrious people. The Ismaulies are few in number, and inhabit some villages in the mountains of the Anzeyry. They are considered to be a remnant of the Assassins and Ismaelites.

PRINCIPAL TOWNS IN SYRIA.

Syria is divided into four eyalets, two of which, Akka and Tarablous, extend over the countries on the shores of the Mediterranean as far north as 35° 55′ N. lat.; the third, Aleppo, occupies the most northern part, from the Mediterranean to the banks of the river Euphrates, and as far south as 35° 45′ N. lat.; and the fourth, Damascus, the interior of the country south of 35° 45′ N. lat.

The *Eyalet of Akka*, better known in Europe by the name of St.-Jean-d'Acre, to which the eyalet of Gaza was

added at the beginning of this century, occupies the whole coast from the boundary-line of Egypt to the Bay of Junie or Kesrawan (33° 55′ N. lat.), and extends over the plain of Falastin, Mount Carmel, the plain of Ibn Omer, the hilly region of Galilee, the plain of Akka, and the Bekaa and Belad Baalbec. The most remarkable places from south to north are *Ramleh* or *Ramah*, E.S.E. of Jaffa, in a fertile and well-cultivated plain; it has 15,000 inhabitants, who derive some advantages from the road from Joppa to Jerusalem, which passes through this town. *Tantura* has a harbour for small boats, and carries on some commerce with Egypt, from which it receives rice and linens. It exports cattle and fruits. *Sur* is built on an isthmus about 400 feet wide, which is supposed to have been formed by the embankment that Alexander the Great made for the purpose of taking the ancient Tyre. The harbour has been filled up with sand, and the roadstead is unsafe, but it is better than that of either Akka or Saïda. The population amounts to 3000, most of whom gain their livelihood by fishing and agriculture. It exports tobacco, wax, and fire-wood.

Acre, St. Jean d' (Akka), on a small promontory which, with Mount Carmel lying to the south, forms a circular bay; it is sometimes called Acra and Acca. Its oldest name was Accho, which was changed to that of Ptolemais during the sovereignty of the Greeks in Syria. In the reign of Claudius it became a Roman colony, styled Colonia Claudii Cæsaris Ptolemais; the name of Accho was revived after it fell into the hands of the Saracens. But from the time of its occupation by the Knights of St. John of Jerusalem it has been known all over Christendom as St. Jean d'Acre, or simply Acre. Acre is well known in the history of the Crusades, having been taken in 1191 by Philip Augustus of France and Richard I. of England. It was for some time in the possession of the Knights of Malta, during whose occupation it was strongly fortified, and filled with churches. Acre

was in a very ruinous condition ih the middle of the 17th century, when Thevenot visited it, but it improved under Sheik Daher, who, in the middle of the 18th century, strengthened the town and revived its commerce. Jezzar Pasha, his successor, fortified the place very strongly, and built a new mosque, which he adorned with columns that once belonged to the old Greek edifices of neighbouring cities. The streets of Acre are narrow, and the houses, which are of stone, have flat roofs. The port is small and not deep, yet it is one of the best along this coast, and is chiefly frequented by Austrian, Italian, and French vessels. Europeans carry to Acre cloth, lead, tin, &c., and receive in exchange some cotton and rice. Bonaparte attempted to storm Acre in the spring of 1799, when he entered Syria at the head of 12,500 men. The obstinate defence of the garrison commanded by Jezzar, and aided by Sir Sidney Smith with English sailors, saved Acre from the repeated assaults of the French general, who after spending more than 60 days before it, and losing nearly 3000 men, retreated to Egypt. On July 2, 1832, Acre was taken from the Sultan after a siege by Ibrahim Pacha, for Mehemet Ali, who repaired the fortress, and added to the defences, so as to render the place all but impregnable. It was, however, taken by the united English and Austrian squadrons in 1840. Great Britain and her allies, Austria, Prussia, Russia, and Turkey, having concluded a treaty at London on the 15th of July, 1840, for the purpose of driving the Egyptian troops out of Syria, and restoring this country to its former master, the Sultan, a combined English and Austrian fleet attacked and took the Syrian seaports. The attack upon Acre began on the 3rd of November. After a heavy firing of two hours, which was well answered by the Egyptians, the grand magazine blew up with a tremendous explosion, probably ignited by a shell from one of the steamers. Two entire regiments of infantry, which were standing in battle array near it, were annihilated, as well

as every living creature within an area of 60,000 square feet. The Egyptian commandant nevertheless continued to defend the town, but the fire of the ships was so effective that it was discontinued at sunset, and the admiral, Sir R. Stopford, commander-in-chief of the united fleet, prepared for a storm on the following day. This however the commandant did not await, but evacuated the fortress during the night with the feeble remnant of his garrison, and on the 4th the Anglo-Austrian force took possession of Acre. After the fall of this bulwark of Syria, Ibrahim Pasha evacuated that country and retired to Egypt. Acre was afterwards restored to the Turks, and the fortifications strongly rebuilt. The population was estimated at from 15,000 to 20,000.

BEIRUT, or BEYRUT, was a Phœnician city of great antiquity, and was called Bérytus and also Bery'tus.

Beirut is now commercially the most important place in Syria, and the entrepôt of the commerce of the Druses and Maronites, who export cottons and silks, and receive in return rice, tobacco, and money, which they exchange for the corn of the Bekaa and Hauran. The British manufactures imported into Beirut are transmitted through Damascus to Baghdad, and through Aleppo to the towns of Asia Minor and Mesopotamia. The imports include cambrics, cotton twist, calicoes, indigo, shawls, printed goods, shirtings, and handkerchiefs; the exports are chiefly raw silk and cotton, skins, hides, madder, gum, galls, fruit, sponges, and tobacco.

Beirut contains few traces of its former splendour: a bath, pieces of granite columns, several of which were still standing when Pococke visited the place, and a few other fragments, are all that now remain. But a great number of granite columns may be seen along the shore beneath the water, and part of the present mole is composed of them. From the débris without the present walls, it appears that the ancient town occupied a larger space than the modern, which is but a small place. The walls

are strengthened by several towers, and there are five gates to the city. It receives a copious supply of water from a small river called Nahr Beirut, which rises in Mount Libanus, and flows into the sea a short distance from the town; the water is conveyed by a canal which was cut by Djezzar Pasha, and is received into reservoirs and fountains. The streets are narrow and dirty: the houses are mostly built of stone. The town is commanded by some low hills to the south-east. Its population is estimated at 15,000 persons, of whom the Turks form one-third. There is a large and well-built mosque in the city, which was formerly a Christian church dedicated to St. John. The suburbs are as large as the city itself.

Beirut stands at the verge of a beautiful plain, varied with small hills, and extending to the foot of Mount Libanus. The surrounding country is covered with kiosks, and enriched with groves of vines, olives, palms, and orange, lemon, and mulberry-trees; behind which rises the lofty chain of Libanus. No corn is produced around the town; a light red wine is made on Mount Libanus, which is cheap and good; but raw silk is the staple, which, with cotton, olives, and figs, is exported to Cairo, Damascus, and Aleppo. Game is abundant; the beef from Libanus is excellent, and supplies of all kinds may be procured good and cheap.

The bay of Beirut is large, and the anchorage good, though open to the northward; formerly there was a port, but now there is only a small mole sufficient to shelter boats. The entrance to the river is too shallow to admit large vessels. There is a rise and fall of about two feet, but no regular tide.

Juneh is a small town in the Kesrawan with a landing-place for small boats. It carries on some commerce with the island of Cyprus. In the interior are the following towns:—*Nazareth*, or *Nazarah*, which is built in a beautiful valley that opens into the plain of Ibn-Omer, and is one of the most fertile and best cultivated districts of Galilee.

It has about 2000 inhabitants, and a fine church. *Tabarieh*, the ancient *Tiberias*, is on the banks of the Bahr-el-Tabarieh, on a small plain surrounded by mountains. Towards the land it is enclosed by a thick and well-built wall. It contains about 4000 inhabitants, who have some commerce with the Beduins. It is a place of pilgrimage for the Jews, who constitute about one-third of the population; the remainder of the population are Turks, with the exception of a few Christians. *Szafed*, or *Safed*, nearly due north of Tabarieh, is a neatly-built town, situated round a hill, on the top of which is a Saracenic castle. It contains about 600 houses, of which about 150 are inhabited by Jews, who consider this as one of their holy cities, and about 100 houses by Christians. The population is between 6000 and 7000. *Zahle*, in a narrow valley which opens into the Bekaa, at the eastern base of Mount Libanus, contains from 800 to 900 houses, and is almost exclusively inhabited by Christians, who make much cotton-cloth and some woollen stuffs. They have 20 drying-houses, and a considerable trade with the Beduins of the Bekaa. *Deir-el-Kamr*, the capital of the emir of the Druses, in a valley of Mount Libanus, is a considerable place eight or nine hours S.E. from Beyrut. It has five or six thousand inhabitants, some of whom are Christians, for in the town are two Maronite and two Melchite churches. The town is built like a second-rate town in Italy. Some silk-stuffs are manufactured. The emir of the Druses resides in the castle of Breddin, about one hour from the town.

The *Eyalet of Tarablous* extends along the sea-coast from the Bay of Juneh to Cape Basit or Possidi, about 12 miles south from the mouth of the river Azy, and comprehends the northern and more elevated portion of Mount Libanus, the plain separating this mountain from the Jebel Anzeyry, and the largest portion of the last-mentioned range. The whole of it, with the exception of

the plain, is fertile and well cultivated. It produces silk, tobacco, oil, fruits, galls, and wax, for exportation. The following are the chief places in this eyalet, from south to north :—*Meinet Berdia*, a small harbour, and a still smaller town, which has some commerce with Cyprus. *Jebail* or *Jubeïl*, the ancient *Byblus*, is a small town, inclosed by a wall a mile and a half in circumference. It has a small harbour, and carries on some commerce with Cyprus. Byblus was famous for the birth and worship of Thammuz, or Adonis. The most ancient name of the place appears to have been *Giblah*. The land of the Giblites was assigned to the Israelites, but they never got possession of it. There are remains of a Roman theatre, and many fragments of granite columns on its site. Giblah gave title to a Christian bishop before it fell into the hands of the Moslem. *Batrun*, the ancient *Bostrys*, is a town consisting of from 300 to 400 houses, mostly inhabited by Maronites. There is no harbour, but an artificial inlet has been formed in the rocks, which admits a few coasting boats. Excellent tobacco is grown along the shores of the Mediterranean. *Tarablous*, the ancient *Tripolis*, one of the most commercial places of Syria, is built on the declivity of the lowest hills of Mount Libanus, and is divided by a river, called Kadish, into two parts, of which the southern is the more considerable. The town is well built, and is much embellished by gardens, which are not only attached to the houses in the town, but cover the whole triangular plain between the town and the sea. It is supplied with excellent water by an aqueduct, which crosses the river upon arches. The population amounts to between 15,000 and 18,000. There are some large manufactures of soap for exportation. The harbour is about two miles from the town ; it is called *El-Myma*, or *El-Minyeh*, and is itself a small town, inhabited by sailors and shipwrights. This harbour is formed by a line of low rocks stretching from the western side of Myna about two miles into the sea towards the north, but it is not safe in

northerly winds. In a north-north-west direction from the harbour there is a line of small islands, the farthest of which is about 10 miles from the mainland. The exports consist of a large quantity of silk, sponges, soap, and alkali, to Anatolia, galls brought from the Anzeyry Mountains, yellow wax from Mount Libanus, madder from Hamah and Hems, scammony, and tobacco. *Tartus*, the ancient *Antaradus*, and perhaps also *Orthosia*, formerly a strongly-fortified town on the coast, nearly opposite the Isle of Ruah, retains some remnants of its old Phœnician walls and vast castle. The place is often mentioned in the history of the Crusades. Here, as in many other places along the Phœnician coast, sepulchral excavations are numerous. Antaradus was rebuilt by the emperor Constantius, after whom it was sometimes called *Constantia*. It gave a title to a bishop till the Saracenic conquest. Tasso calls the town *Tortosa*. It is now a small place. *Jebili* is a small town, in the neighbourhood of which much tobacco is grown, which is exported to Latakia. There is a small port and an ancient theatre here. *Latakieh*, or *Ladikiyeh*, the ancient *Laodicea*, stands on the northern edge of an elevated tongue of land called Cape Ziaret, which advances nearly two miles beyond the general line of coast. The houses stand partly in the midst of gardens and plantations, and most of them have flat roofs. The port, called *Scala*, or *Marina*, is about half a mile from the town, and separated from it by gardens and plantations. The harbour, which is well sheltered, except to the west, admits only vessels of 100 tons burthen. The chief exports of the place are tobacco of excellent quality (most of which goes to Egypt), cotton, raw silk, and wax. The imports are rice from Egypt, wine from Cyprus, and assorted goods, especially hardware, from England. In Mount Libanus is *Kanobin*, a convent, the seat of the patriarch of the Maronites. In its vicinity are the famous cedars of Mount Libanus. About a mile and a half from the coast is the island rock of *Ruad*, on

which the ancient Phœnician town of *Aradus* was built. Aradus, the *Arpad* of the Old Testament, was next in importance to Tyre and Sidon; it was founded by a colony from the latter. It continued to be a flourishing place through the whole course of ancient history till the reign of the emperor Constans, when it was demolished and its inhabitants expelled by a lieutenant of the khalif Omar. The town was never rebuilt; but about 3000 inhabitants dwell on the island, which is only about a mile round. Part of the old Phœnician walls, and also the ancient cisterns, still remain. As in ancient times, the inhabitants draw their fresh water from submarine springs.

The *Eyalet of Haleb*, or *Aleppo*, contains the northern part of the Jebel Anzeyry, the valley of the lower Azy, together with the Ghab, the Jebel Amar, the Umk, the Hilly Region of Northern Syria, and the Northern Plain. The western and northern portion is very fertile, and in many places is well cultivated; the eastern is partly stony and partly sandy, and for the most part a desert.

On the coast are the harbours of SCANDEROON and *Sweïdiyah*, or *Suadeiah*. The latter is not far from the mouth of the river Azy, and has good anchorage, but is much exposed to western and south-western winds. Near it there is a large and scattered village of the same name.

In the valley of the river Azy is *Antakia*, and in the plain is the capital, *Aleppo* or *Haleb*.

ALEPPO (*Haleb*) is built on several hills, and is surrounded by an old wall of Saracenic architecture, pierced by seven gate-entrances, and now partly in ruins. Outside the wall are large suburbs, and the circuit of the whole rather exceeds seven miles. The population is said to have amounted at one time to 250,000, but is now estimated at about 70,000 only. An earthquake, in 1822, destroyed two-thirds of the houses of the city, and caused multitudes of the inhabitants to forsake it. The streets are wide, well paved, and furnished with footpaths. The houses and other buildings are constructed

of freestone in the Saracenic style, with flat roofs, spacious apartments, large windows, and richly decorated walls and ceilings. Many of the public structures, including the ancient palace, which was destroyed during a siege in 1819-20, and many of the mosques, are now in ruins. The new citadel stands on the N.W. of the town, and contains large barracks, in which the garrison is lodged. The city formerly had a hundred mosques, and fifty mesjeds, or oratories. Among the mosques is one, that of Zacharias, which is held in great veneration by the Turks; Christians are forbidden to enter it. A handsome aqueduct supplies the town with water, which is distributed among numerous fountains of massive architecture. There are a Mohammedan college, several Christian churches and schools, a synagogue, and several large bazaars, warehouses, and coffee-houses in the town. The Mussulmans, Christians, and Jews of Aleppo, reside in respective quarters of the city. The immediate environs of the town are fertile and well-cultivated, and both banks of the river are laid out in gardens famous for their plantations of pistachio-trees. Aleppo is the cleanest town in Syria.

The city had formerly a considerable trade with England by the port of Iskenderun; before the earthquake of 1822 its manufactures of shawls, silks, cottons, gold and silver, &c., were very considerable. It is still the commercial entrepôt for the trade between Turkey and Asia Minor on the west, and Persia and Upper Arabia on the east; and its position, with its large warehouses, its bazaars, and ready communication with the Euphrates, would always render it a place of extensive trade, were these advantages accompanied by a steady government which could guarantee security of life and property. The woven fabrics of Aleppo were formerly famous all over the east: those still manufactured consist of silk stuffs with gold and silver thread, silk and cotton striped or flowered, and striped cottons called nankins. In all

about 4000 looms are sometimes employed in the production of these stuffs, which form an important item in the exports of Aleppo. There are also 30 factories manufacturing soap from oil; 100 dyeing and print works; 15 workshops of gold and silver thread. About 70 Mussulman, 30 Christian, and 10 Jewish houses were then engaged in the trade with Europe, or in the sale of European commodities. There were also several bankers. Foreign consuls reside in Aleppo.

The imports from Europe, chiefly from Great Britain, France, Italy, and Germany, comprise sugar, coffee, indigo, cochineal, coperas, tin bars and plates, pepper, pimento, sal-ammoniac, cotton twist and yarn, broadcloth, red caps called tarbouches, printed handkerchiefs, glass ware, coral, French silks and velvets, dye-woods, unbleached and white cotton cloth, muslins, cotton prints, ironmongery and steel ware, earthenware, window-glass, writing and packing-paper, rice, cambrics, cotton crapes, piece goods, &c.

The ports of Aleppo are Iskenderun and Latakia, whence goods are continually being conveyed on mules and camels, the number of animals in each caravan varying from 10 to 100. Aleppo supplies not only its own population, and that of the surrounding country, with the articles named, but also distributes them by caravans among the people of Armenia, Marash, Orfa, Diar-Bekr, Mardin, and Mossul. A caravan is sent to Baghdad once a year.

Of the native products exported from Aleppo to Europe it is impossible to give a correct account. They consist mainly of silk, cotton, wool, galls, scammony, and camels' hair; and are shipped on Aleppo account from Tarsus, Latakia, and Iskenderun.

To the south-west of Haleb, and near the base of the Hilly Region, is the town of *Edlip*, containing more than 1000 houses, some manufactures of cotton-stuffs, a few dyeing-houses, and a large manufactory of soap. It has

a considerable trade with the fertile and well-cultivated district in which it is situated, which it provides with rice, coffee, oil, tobacco, and manufactured goods.

The *Eyalet of Damascus*, or *Sham*, extends over the southern of the two great plains which occupy the north-eastern portion of Syria, over the plains of Damascus, the southern portion of Mount Antilibanus, the greater part of the Wadys Seissaban and El-Ghor, the table-land of Judæa, the Haouran, and the mountain regions of the Belka and the Shera. There are Beduin Arabs in every district.

On the table-land of Judæa is JERUSALEM, situated at an elevation of 2000 feet above the level of the Mediterranean, 29 miles E. from the nearest point of the shore of that sea, and 21 miles W. from the mouth of the Jordan in the Dead Sea.

The site of Jerusalem is an elevated piece of ground within a basin of inclosing hills. The separation between this spot and the outward borders of its inclosure is well marked by ravines and valleys, except towards the north. The inclosed platform extends about 1800 yards from north to south, and (in the widest part) 1100 yards from east to west: it has a general slope from west to east, so that the town is fully displayed, like a panorama, to those who view it from the east. The surface is uneven. The south-western part of the site is occupied by Mount Sion, on which stood the stronghold of the Jebusites. To the north-east of this, but separated from it by a ravine or valley called by Josephus Tyropoieon (or Cheese-makers), is Mount Acra, the site of the Lower City, or Salem; and east of this lies Mount Moriah, the site of the Temple, from which a spur called Ophel, or Ophla, extends to the southern wall, between the Tyropoieon and the Valley of Jehoshaphat. The Valley of Tyropoieon, though distinctly traceable, is now shallow, having been nearly filled up in the long course of ages. In the north and north-west of the city was the hill Bezetha, or New City, which

was built upon as the population of the city increased, and was included in the wall of Agrippa; but a very small portion of it is included in the modern city, and it rises high above the deep external ravine which it overlooks. The other eminences of the platform, such as Mount Moriah (on which the Temple stood), and Mount Acra, are now scarcely distinguishable as elevations, from the filling up of the interjacent valleys. Except at Mount Sion the general level of the site is below that of the immediately surrounding country.

On the west and south of the site is the Valley of Hinnom; on the east the Valley of Jehoshaphat. The Valley of Hinnom originates in a depression containing an ancient pool, about 500 yards westward of the north-western angle of the modern wall; it thence runs south and east along the western and southern sides of Mount Sion, to the east of which the Tyropoieon opens into it. About 800 yards from the upper pool is another and a larger pond called the Lower Pool; and to the south of the valley, nearly opposite Mount Sion, is a high rocky hill called the Hill of Evil Council, from the tradition that Annas, father-in-law to Caiaphas the high priest, had a residence upon it. (St. John, xviii. 13, 14, 24.) A little below some ruins on the hill is the Potters' Field, the white clay of which is still worked.

On the north-west side of the city is a broad swell of land extending in a north-east direction for about 1500 yards, between the upper pool of the Valley of Hinnom and the Tombs of the Kings, which are situated at the head of the Valley of Jehoshaphat. This valley then commences at the extreme north of the Wall of Agrippa, more than 800 yards beyond the precincts of the modern city, and runs first to the east, and then turning abruptly south it skirts the eastern wall and meets the Valley of Hinnom at the south-eastern angle of the city. From this junction a valley runs south-eastward to the Dead Sea. In ancient times the brook Kedron flowed through

the Valley of Jehoshaphat. In this valley are many ancient tombs, among which may be mentioned those of Jehoshaphat, Absalom, and Zechariah. About the middle of its length, on the eastern side of the city, is the Garden of Gethsemane, with its venerable olive-trees ; and near it is a subterranean church, which contains the reputed Tomb of the Virgin. Nearly opposite the Tomb of the Virgin, within the city, and about 300 yards from the north-eastern angle of the city wall, is the Pool of Bethesda. Lower down the valley is the Fountain of the Virgin ; and a little to the west is the Pool of Siloam, near the junction of the Tyropoieon with the Valley of Hinnom. On the top of Mount Sion, about mid-way between the Pool of Siloam and the lower pool of the Valley of Hinnom (which is now called Birket-es-Sultan), is a mass of building supposed to be the tombs of David and the succeeding kings of Judah. The Pool of Siloam is now filled up and cultivated as a garden ; a small tank however still fixes the site. On the eastern side of the Valley of Jehoshaphat is a group of hills called the Mount of Olives, on the highest point of which is built the church of the Ascension. On an eminence a little farther south are the tombs of the Prophets. South from Mount Olivet, and to the east of the junction of the three valleys, is the Mount of Offence, on which Solomon erected altars for idolatrous worship ; and in the southern valley, between the mounts of Offence and Evil Council, is a deep well, called the Well of Nehemiah, or Job, and supposed to be identical with Enrogel, or the Well of the Spies, situated on the border of Judah and Benjamin. (Josh. xv. 7.) There is scarcely any incident mentioned in Scripture, as connected with Jerusalem and its neighbourhood, of which the site is not pointed out.

The Moslems have appropriated the site of Solomon's Temple to their own worship. The renowned mosque built by the Khalif Omar is an octangular structure surmounted by a dome, and stands upon an elevated platform

paved with polished marble. This is in the midst of a grand quadrangle called Haram-es-Sherif, or the Noble Sanctuary (1489 feet by 995 feet), which contains at its southern extremity another mosque, that of El-Aksa, which was originally a Christian church built by Justinian. The site of the ancient Acropolis, originally called Baris, but after its enlargement and embellishment by Herod the Great, Antonia, stood in the north-west angle of the Temple inclosure. It was at once a castle and a palace; a defence to the Temple, as the Temple was to the city itself. This building was the official residence of the Roman procurator of Judæa and his guards; and its site is now occupied by the Serai-yah, which comprises the official residence of the Turkish pasha who governs Jerusalem and the quarters of the garrison. But to the thousands of Christian pilgrims who yearly visit Jerusalem the great object of interest is the church that contains the sepulchre of Christ, to redeem which from infidel hands was the object of the Crusades. This church was one of the numerous foundations of the empress Helena. As a whole this extensive structure takes a prolonged oblong figure, with irregular extensions in particular parts for the sake of comprehending the various spots connected with the death and burial of Christ; for this church is not only supposed to contain the sepulchre, but the scene of the Crucifixion. Among other noteworthy objects are the monasteries of the several Catholic communities, the Greek convent of St. Constantine near the Holy Sepulchre, and the Armenian convent of St. James, on the highest point of Mount Sion; and the colleges or hospitals of the Moslems in the vicinity of the mosques. The other public buildings of Jerusalem are not of much importance.

Jerusalem is in shape an irregular square; it is surrounded by a high embattled wall, built of cut-stone by the Sultan Suliman in 1542, and has four gates

facing the cardinal points—the Jaffa Gate on the west, the Damascus Gate on the north, St. Stephen's or St. Mary's (Bab-Sitti-Miriam) Gate on the east, and Sion Gate on the south. A line drawn from the Damascus to the Sion Gate, and another drawn from the Jaffa Gate to the southern part of the Haram-es-Sherif, would divide the city into the four quarters by which it is usually distinguished. These are—the Christian quarter to the north-west; the Armenian quarter to the south-west; the Jewish quarter to the south-east; and the Moslem quarter, comprising all the rest of the city, west and north of the Temple inclosure. The city is about 2½ miles in circumference. The fixed population of the city has been variously estimated, some accounts stating it at 30,000, others at 10,000. About one-half of the population are Moslems, the other half are Christians and Jews in about equal numbers. The number of Christian pilgrims amounts to a few thousands.

Nablous, and Khalil *Nablous* (a corruption of *Neapolis*), on or near the site of Sichem, is situated in a valley between Mounts Ebal and Gerizim. About two miles east of the town is another valley called Erd-Mukhna. At the north-east base of Gerizim is the village of *Askar*, probably the ancient *Sychar*, close to which are Jacob's Well and Joseph's Tomb. Nablous is a large and well-built town, with about 14,000 inhabitants, who are Mohammedans, with the exception of about 200 Samaritans. The streets are narrow and roughly paved, but the houses are well-built with stone and dome-roofed. The town is well supplied with water by streams and by fountains which spring up in the valley between Nablous and Askar. Nablous is commonly said to occupy the site of the *Sichem*, or *Schechem*, of the Old Testament, which however Eusebius and St. Jerome say was a suburb of Neapolis; and St. Jerome also maintains that Sychar in St. John's Gospel (iv. 5) is a corruption of Sichem. Pliny and

Josephus respectively give the native name as *Mamortha* and *Mabortha*, which Reland corrects from coins to *Morthia*. This last name the same writer says is the classical form of *Moreh*, and both names (Moreh and Sichar) he supposes to have been adopted by the Jews from the prophet Habakkuk's "Moreh Shaker," "teacher of lies," and applied to the Samaritan city as the seat of error. Sichem is a very ancient site. Abraham sojourned in it on his first coming into Canaan, and built an altar in it. Jacob's connection with it is marked by the well. It fell to Ephraim, and was a Levitical city, and a city of refuge. Here was the tabernacle in the time of Joshua, who set up a pillar near it shortly before his death. Here Gideon defeated the Midianites, and Rehoboam was made king. The name Neapolis was given during the occupation of Syria by the Greeks, who probably extended the city to the westward on account of the abundant supply of water. Simon Magus practised his sorceries in Neapolis, and Justin Martyr was a native of the same city. About 10 miles S. from Nablous is *Silun*, the ancient *Shiloh*. *Khalil*, the *Hebron* of the Bible, and one of the holy cities of the Jews, is south of Jerusalem, not far from the place where the table-land of Judæa joins the Desert of El-Tyh. It contains about 3000 inhabitants, and has some glass-houses. Hebron was frequently the residence of Abraham, Isaac, and Jacob, who were buried here in the cave of Macpelah; the tombs are still shown. David, as king of Judæa, resided above seven years in Hebron. The town was taken and burnt by the Romans in the great Jewish war. Outside the town are two reservoirs, one of which is supposed to be the "pool in Hebron," mentioned in 2 Sam. iv. 12.

On the banks of the river Azy are the towns of Hamah and Hems. *Hamah*, the ancient *Epiphaneia*, lies on both sides of the river, and is partly built on the declivity of a hill and partly on a plain. It contains between 30,000 and 40,000 inhabitants, among whom are many rich

Turkish families. Though the houses make no great show, they are well arranged and furnished. It is one of the principal places to which the Arabs resort to buy tent-furniture and clothes, and it has several manufactures; the abbas, or woollen cloaks, made here are much prized. There are four bridges over the river. Hamah retains almost unaltered its ancient name *Hamath*, which it bore in the time of St. Jerome. *Hems*, the ancient *Emesa*, situated higher up the Azy, at a short distance from the northern extremity of the Bahr-el-Kades, contains a population of between 25,000 and 30,000 individuals, and several manufactures. It is not so well built as Hamah. Emesa was celebrated for its Temple of the Sun. Heliogabalus was a priest of this town before he was raised to the imperial dignity by the Roman legionaries of Syria. Near Emesa, Aurelian defeated Queen Zenobia, A.D. 272. To the south-east of Hems, at the distance of nearly 100 miles, are the ruins of PALMYRA.

In the valley of the Upper Jordan, or Seissaban, are Hasbeya, Rasheyat-el-Fukhar, and BANEAS. *Hasbeya* is built on the top of a mountain, and is a thriving place, with 700 houses, and manufactures of cotton-cloth for shirts and gowns, and a few dyeing-houses. In the vicinity are traces of quicksilver, iron-ore, and upwards of 25 bitumen-pits, which supply an article of trade to Aleppo, Damascus, and Beyrut. *Rasheyat-el-Fukhar* is a village on the top of a mountain; it contains about 100 houses, each of which may be considered as a manufactory of earthen pots. They are moulded in very elegant shapes, painted with red earth, and form a considerable article of inland trade, especially in the eastern districts of Syria.

DAMASCUS (*Damas; Es Scham*), is situated in a fertile plain at the east base of the Antilibanus, about 180 miles S. by W. from Aleppo, and 60 miles from the Mediterranean. It is one of the most ancient towns in the world, being mentioned as existing in the time of Abra-

ham. (Genesis, xiv. and xv.) It is one of the very few places which have maintained a flourishing existence in all ages. Though often taken and devastated it has always risen again, and has always been mentioned as one of the most delightful situations in the world. It appears to have been in the time of David or of Solomon (1 Kings, xi. 24) the capital of an independent kingdom, which afterwards under the name of the kingdom of Syria was engaged in wars with the Jews. It was subsequently annexed to the empire of Assyria, afterwards to that of Persia; it then fell into the hands of the Macedonians, the Romans, and lastly of the Arabians, A.D. 634, when it was taken by the lieutenants of the kalif Abu-Bekr after the defeat of the forces of the emperor Heraclius in its neighbourhood. In the annals of the Church, Damascus is noted for the conversion and first preaching of St. Paul. It became for a time the residence of the kalifs, and after other vicissitudes was taken by the Turks under Sultan Selim. In the war between the Porte and Mehemet Ali, pasha of Egypt, Damascus was taken by the troops of the latter, to whom it was formally ceded in 1833, but was restored to the Porte in 1840.

The pashalic of Damascus extends from north to south, from Hamah on the Orontes down to the deserts of Arabia Petræa, south-east of the Dead Sea, a length of about 4 degrees of latitude; and it comprehends the country of Haouran, and the other districts on the east side of the Jordan, the Lake of Tiberias, and the Dead Sea, besides the greater part of Judæa west of the Jordan, including Jerusalem and Nablous. It is bounded E. by deserts, which divide it from the valley of the Euphrates, N. by the pashalic of Aleppo, and W. by the pashalic of Acre. Corn, hemp, flax, madder, tobacco, cotton, silk, and cochineal are the chief products. Live stock are numerous. Except in the west the surface is level, and the cultivable land is extremely fertile. The total population exceeds half a million, exclusive of the Beduins.

The town is about six miles in circumference, is surrounded by old brick walls falling to ruin in several places, and contained a population of 111,552, of whom about 12,000 were Christians and 5000 Jews. The rest are Mohammedan Syrians, Arabs, and Turks. Outside the walls are extensive suburbs. The streets are narrow, and many of them have a gloomy, dilapidated appearance, being lined with dead brick walls, which are entered by small doors that open into the courts of the respective houses. Many of these houses are splendid in the interior, the courts being paved with marble and kept cool by fountains. There are no carriages in Damascus, and but few carts; camels, horses, mules, and asses constituting the means of conveyance. The Mohammedans of Damascus are the most fanatical and intolerant in Turkey, as they have proved by their frequent massacres of the Christian inhabitants.

The city contains many handsome mosques, the principal of which, originally a Christian cathedral dedicated to St. John, is 650 feet long and 150 feet wide; three Franciscan convents, in which the archbishops of the Armenian, Melchite, and Syrian Catholics respectively reside; several Christian churches belonging to the Greeks, Maronites, Syrians, and Armenians; eight synagogues; an extensive khan; numerous bazaars all well supplied with goods; various hospitals and schools; a large serai, or fortified palace, in which the pasha resides in the centre of the city; and an extensive citadel. The great khan is a sumptuous building, the masonry being formed of alternate layers of black and white marble. The spacious square court within has a handsome fountain in the middle, and is surrounded by a fine arcade of pointed arches, enriched with mouldings. On the ground-floor are the entrances to chambers and magazines, and a staircase and gallery lead to another series of apartments above.

Damascus is a place of great trade, which is carried on by caravans to and from Baghdad, Mecca, Aleppo, &c.;

there is caravan communication daily to Beirut, Tripoli, and Acre. British and European goods are imported to a considerable amount. The manufacture of Damascus blades, once so famous, has declined long since: but good sabres are still made. Saddles and bridles, both rich and highly finished; fine cabinet work, inlaid with ivory and mother-of-pearl; and rich jewellery, are among the articles of Damascene industry. The city is the seat of a tribunal of commerce. About 4000 looms were employed a few years ago in the manufacture of silk and cotton goods. The bazaars are better lighted, and have a more elegant appearance than those of Cairo or Constantinople. Every class of commodities has its own street or bazaar: in one they sell nothing but shoes, another is occupied by the goldsmiths, &c. The town is well supplied with snow and ice from the neighbouring mountains; ice-water, mixed with the juice of figs or currants, is a favourite beverage. The best coffee-houses of Damascus are situated in the suburbs, on a branch of the Barada; they are built of wood, and are cool and well shaded from the sun, which is their chief attraction.

Beirut is the port of Damascus. The great Hadji caravan, consisting of from 50,000 to 60,000 pilgrims from various parts of Turkey, goes every year from Damascus to Mecca. Foreign consuls reside in Damascus.

In the mountain regions east of the Jordan are the towns of Szalt, Kerek, Tafyle, and Maan. *Szalt*, which is nearly in the centre of the Belka Mountains, is situated on the declivity of a hill. It constitutes a republic, independent of the Turkish pashas, who have made several attempts to subjugate it, but without success. The population consists of about 400 Mussulman and 80 Christian families of the Greek Church. The greater part of the population is agricultural; a few are weavers; and there are about 20 shops, which furnish the Beduins who inhabit this region with articles of dress and furniture. Much sumach, which is collected in the mountains, is sent

to Jerusalem for the use of the tanneries; and ostrich-feathers are taken by the Beduins to Damascus. In its neighbourhood, to the south-east, are the ruins of Amman, or Philadelphia; and to the northward is Jebel Jelad, the ancient Mount Gilead. North of the Zerka, the ancient Jabbok, and nearly in 36° E. long., is Jerash, in which are many ruins of Roman buildings—a triumphal arch, Corinthian temple, a Christian church, theatre, and amphitheatre. *Kerak* lies in the northern district of the Shera Mountains, and is built on the top of a steep hill, which is surrounded by a deep and narrow valley. It is inhabited by 400 Mussulman and 150 Christian families. Whilst Syria was subject to Mehemet Ali, Szalt and Kerak were subjected to a strict obedience to government by Ibrahim, but under the Turks the chiefs of Kerak are nearly independent. The population send sheep, goats, mules, hides, wool, and madder to Jerusalem; and provisions to the Hadji road, which is about 15 miles to the east of the town. *Tafyle* is in the centre of the Shera Mountains, on the declivity of a hill, in a country abounding in springs and rivulets, and full of plantations of fruit-trees. Figs, wool, butter, and hides are sent to Gaza. The town contains about 600 houses, but suffers much from the exactions of the Howeitat Beduins, the authority of the Turkish government being very small. The town of *Maan* stands on two small hills on the desert table-land which is east of the mountains of Shera. It consists of about 100 houses on both sides of the Hadji route, which divides the town. There are several springs, by means of which the extensive plantations of figs, pomegranates, apricots, peaches, and plums are watered. The town owes its existence to the Hadji-road, and derives considerable profit from the pilgrims by selling them provisions brought from other parts, especially from Khalil and Gaza. West of Maan are the ruins of PETRA, and a little farther west, Mount Hor, now called Jebel-Neby-Harum.

INDUSTRIES AND COMMERCE OF SYRIA.

Syria is the most manufacturing country in Western Asia. The most manufacturing town is Damascus, famous for its silk stuffs, especially satin and silk damasks and brocades, cottons, linen, and leather. The manufacture of saddles, and horse- and camel-trappings, is also important. Other products of Damascene industry are—jewellery, works in gold, silver, copper, and iron; sword-blades, tobacco, soap, and articles in ivory and precious woods; perfumes, balms, aromatic oil, sweet-scenting essences, confectionery, pastry, &c. The manufactures of Aleppo are small compared with those of Damascus and mostly limited to cotton and silk stuffs, and gold and silver lace. It must also be observed that some branches of manufacturing industry are carried on in all the towns, and even in some villages, such as cotton-stuffs for gowns and shirts, the dyeing of cotton, mostly blue and red, tanning leather, and making soap. Such places however supply only the neighbourhood and the Beduins who resort to them for such articles, and they rarely if ever work for a distant market.

The imports consist of rice, hardware, some French tissues, indigo, cochineal, and coffee. Very little sugar is imported: the debs, an extract from grapes, being used as a substitute; and this article is manufactured in Syria to a great extent. The most important article of export to Europe is silk. Other less important articles are galls, olive-oil, sponges, fruits, and tobacco. The fruits, which are principally exported, are dates, raisins, figs, and pistachio-nuts. Madder is also exported to a moderate extent. There is some coasting trade between Syria and Egypt, Cyprus, and the south coast of Asia Minor. Egypt receives chiefly live stock and tobacco, for which it pays with rice.

The commerce between Syria and the countries to the east and north of it is very extensive. At all seasons of

the year numerous caravans are on the road going or returning from these parts. This commerce is concentrated in Aleppo. Manufactured goods go from Damascus to Aleppo, whence they are carried to Anatolia and Constantinople, and to Mosul, Baghdad, and Basra. Two well-frequented routes lead from Aleppo to Constantinople through Anatolia. The most western leads from Aleppo westward to Antioch, and thence through the Baïlan Pass to Scanderoon, whence it runs along the shores of the Bay of Scanderoon to Adana and Konieh in Asia Minor. The eastern commercial route runs due north from Aleppo, and traverses the chain of the Alma Dagh between Aïntab and El-Bostán, where it proceeds to Kaïsariyeh. Two routes lead from Aleppo to Persia, which divide at Orfa in Mesopotamia. From Aleppo the road runs north-east to Bir, where the Euphrates is crossed, and from which place to Orfa it continues eastward. The northern road leads from Orfa to Diarbekr, where it passes the Tigris, and thence goes over a very mountainous district to Bedlis and Van, and from Van it continues to Tabriz. The southern road on leaving Orfa passes through Mardin, Nisibin, and Mosul, where it crosses the Tigris, and whence it continues through Kirkuk, Kirmanshah, and Hamadan to Teheran. This road is also sometimes used by the Baghdad caravans as far as Mosul. But the most frequented caravan route between Aleppo and Baghdad runs from Aleppo in a south-eastern direction through the northern part of the Syrian desert, which it enters after leaving the lake of El-Sabkh. It reaches the Euphrates at Annah, and runs along the river to Hit, where it crosses the stream, and then goes due east to Baghdad, or continues south-east by Hilla to Basra. It may be unnecessary to state that, though these routes are sometimes called roads, it must be understood that there are no roads in the European sense in the Turkish empire.

A line of telegraph has been completed by which Syria has been placed in communication with Constantinople

and Cairo. It passes by Lâtakia, Tripoli, Beirut, Saïda, St. Jean d'Acre, Jaffa, and Gaza, and has branch lines to Damascus, Nablous, and Jerusalem; and others from Damascus to Beit-ed-Din, in the Kerawan, and to Aleppo by Homs, were opened in 1867. In 1866 a railway was commenced to unite Aleppo with Suadeiah, a port with a good anchorage near the mouth of the Azy.

Education, as might be supposed, is not very much extended in Syria. The variety of religious sects has, however, given an impulse, but the schools are all on what is styled in England the *denominational system*. Thus the Maronites have five superior schools in the Lebanon, and the Armenian Catholics, the Greek Catholics, and the Mohammedans, have one each in different places, where students are instructed gratuitously in Arabic literature, French, Italian, Latin, logic, moral philosophy, and theology. The students are usually youths designed for the priesthood. There are other schools and seminaries under the guidance of Jesuits and Lazarists from France; and one was founded in 1867 for girls under the superintendence of the Sisters of St. Joseph; another for boys has been established at Abey by English Protestants. Schools for teaching reading and writing are found in most large villages, but it is stated that the poverty of the parents compels them to withdraw the children before they can make much progress, in order to avail themselves of their labour. The Druses alone had no educational establishment until Daoud founded and endowed one at Abey.

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